



SANTA FE IRRIGATION DISTRICT

2010 URBAN WATER MANAGEMENT PLAN



Final - June 2011

Prepared By:

RMC
Water and Environment

SANTA FE IRRIGATION DISTRICT

2010 URBAN WATER MANAGEMENT PLAN

Final
June 16, 2011

Prepared For:



5920 Linea Del Cielo
Rancho Santa Fe, CA 92067

Prepared By:



Project Team

Santa Fe Irrigation District

Michael Bardin	General Manager
Bill Hunter	Engineering Manager
Jessica Parks	Management Analyst
Karen Falk	Associate Civil Engineer

RMC Water and Environment

Rosalyn Prickett	Project Manager
Crystal Mohr	Project Planner
Leslie Dumas	Technical Review

Table of Contents

Chapter	Page
Project Team	2
Table of Contents	3
List of Tables	4
List of Figures	5
Appendices	5
Acronyms and Abbreviations	5
Chapter 1 Plan Preparation	7
1.1 Introduction	7
1.2 Agency Coordination	7
1.3 Plan Adoption, Submittal, and Implementation	11
Chapter 2 System Description	12
2.1 District History and Service Area	12
2.2 Service Area Population	15
2.3 District Planning	17
Chapter 3 System Demands	18
3.1 Historic Total Water Demands	18
3.2 Projected Total Water Demands	20
3.3 Wholesale Water Demand Projections	27
3.4 Baselines and Targets	27
Chapter 4 Water Supplies	31
4.1 District Water Sources	31
4.2 Water Authority Water Sources	33
4.3 Recycled Water Opportunities	36
4.4 Effects of Climate Change	41
4.5 Future Water Projects	42
Chapter 5 Water Supply Reliability	43
5.1 Reliability of District Supply	43
5.2 Reliability of Water Authority Supply	44
5.3 Water Quality Impacts on Reliability	45
5.4 Drought Planning	47
Chapter 6 Water Shortage Contingency Planning	52
6.1 Water Shortage Emergency Response	53
6.2 Water Shortage Contingency Plan	54
Chapter 7 Demand Management Measures and SBx7-7 Compliance	57
7.1 Summary of SBx7-7 Baseline and Target Demands	57
7.2 Summary of Projected District Demands	57
7.3 Demand Management Measures for SBx7-7 Compliance	59
7.4 Water Use Reduction Plan	62
7.5 Economic Impact of SBx7-7 Compliance	63
References	64

List of Tables

Table 1-1: Coordination with Appropriate Agencies.....	8
Table 2-1: Current and Projected Population.....	15
Table 3-1: Potable Water Deliveries, 2005 and 2010	19
Table 3-2: Projected Potable Water Demands (2015 and 2020).....	23
Table 3-3: Projected Potable Water Demands (2025, 2030, and 2035).....	23
Table 3-4: Projected Low-Income Water Demands	25
Table 3-5: Additional Water Uses and Losses.....	26
Table 3-6: Total Water Use.....	26
Table 3-7: Total Demand Projections Provided to Wholesale Supplier	27
Table 3-8: Base Period Ranges	28
Table 3-9: Base Daily per Capita Water Use – 10 to 15-Year Range	29
Table 3-10: Base Daily per Capita Water Use – 5-Year Range	29
Table 3-11: 2015 and 2020 Water Use Targets	30
Table 4-1: Current and Projected Water Supplies	31
Table 4-2: Existing and Planned Wholesale Supplies	32
Table 4-3: Wastewater Collection and Treatment	37
Table 4-4: Non-Recycled Wastewater Disposal	38
Table 4-5: Recycled Water – Verifiable and Planned Potential Future Use.....	39
Table 4-6: 2005 UWMP Use Projection Compared to 2010 Actual	39
Table 4-7: Methods to Encourage Verifiable and Planned Recycled Water Use	40
Table 4-8: Potential Climate Change Impacts	41
Table 4-9: Future Water Supply Projects.....	42
Table 5-1: Factors Possibly Affecting Supply	44
Table 5-2: Basis of Water Year Data.....	48
Table 5-3: Supply Reliability – Historic Potable Conditions	48
Table 5-4: Hypothetical Supply Reliability – Current Water Sources	49
Table 5-5: Supply and Demand Comparison – Normal Year.....	49
Table 5-6: Consideration of Urban Water Use Targets	50
Table 5-7: Supply and Demand Comparison – Single Dry Year.....	50
Table 5-8: Supply and Demand Comparison – Multiple Dry-Year Events.....	51
Table 6-1: Drought Condition Stages to Address Water Supply Shortages	55
Table 6-2: Mandatory Prohibitions and Consumption Reduction Methods	55
Table 6-3: Penalties and Charges.....	56
Table 7-1: DMMs for Urban Water Management in California.....	60

List of Figures

Figure 1-1: Service Area and Neighboring Agencies.....	10
Figure 2-1: Regional Water System	13
Figure 2-2: Annual Precipitation in the San Diego Region	15
Figure 3-1: Historic Total Water Demands (1995 – 2010).....	18
Figure 3-2: 2010 Total Water Demand by Land Use	20
Figure 3-3: Historic and Projected Total Water Use	22
Figure 4-1: Diversification of Water Authority Supplies	35
Figure 7-1: District’s Historic and Projected Potable Water Use	58

Appendices

A	Urban Water Management Planning Act and SBx7-7
B	Department of Water Resources 2010 UWMP Checklist
C	City and County Notification Letters
D	Public Hearing Notice
E	2010 UWMP and SBx7-7 Targets Adoption Resolution
F	Low Income Development Service Priority Resolution
G	Lake Hodges Water Agreement
H	Article 17, Drought Response Policies and Procedures
I	Emergency Interconnections
J	2009-2010 Annual Report and BMP Coverage Report

Acronyms and Abbreviations

Act	California Urban Water Management Planning Act
AF	Acre-feet
AFY	Acre-feet per year
Badger Plant	R.E. Badger Filtration Plant
BMP	Best Management Practice
CIP	Capital Improvement Program
CLIP	Commercial landscape incentive program
CRA	Colorado River Aqueduct
CSD	Community Services District
CUWCC	California Urban Water Conservation Council
CVWD	Coachella Valley Water District

District	Santa Fe Irrigation District
DMM	Demand management measure
DO	Dissolved oxygen
DWR	California Department of Water Resources
ESP	Emergency Storage Project
FRA	Fairbanks Ranch Association
FRWTP	Fairbanks Ranch Wastewater Treatment Plant
FY	Fiscal Year
GPCD	Gallons per capita per day
HCF	One hundred cubic feet
IID	Imperial Irrigation District
LAFCO	Local Agency Formation Commission
LRP	Local Resources Program
LWSD	Local Water Supply Development
MCB	Marine Corps Base
MGD	Million gallons per day
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
NCWRP	North City Water Reclamation Plant
OMWD	Olivenhain Municipal Water District
QSA	Quantification Settlement Agreement
RO	Reverse Osmosis
RSFA	Rancho Santa Fe Association
RSFWRF	Rancho Santa Fe Water Reclamation Facility
SANDAG	San Diego Association of Governments
SBx7-7	Senate Bill x7-7 (Water Conservation Bill of 2009)
SDG&E	San Diego Gas and Electric
SDWD	San Dieguito Water District
SEJPA	San Elijo Joint Powers Authority
SEWRF	San Elijo Water Reclamation Facility
SFID	Santa Fe Irrigation District
SFVWRF	Santa Fe Valley Water Reclamation Facility
SONGS	San Onofre Generating Station
SWP	State Water Project
TDS	Total dissolved solids
TOC	Total organic carbon
ULFT	Ultra low-flush toilet
UWMP	Urban Water Management Plan
Water Authority	San Diego County Water Authority
WBIC	Weather-based irrigation controllers

Chapter 1 Plan Preparation

1.1 Introduction

In 2005, the Santa Fe Irrigation District (District) developed an Urban Water Management Plan (UWMP). The 2005 UWMP defined the District's approach to provide adequate water supplies to meet existing and future demands under a range of water supply conditions, including water shortages. California state law requires updates of the UWMP every five years.

This 2010 update of the District's UWMP was prepared in accordance with the California Urban Water Management Planning Act of 1983 (Act) and the Water Conservation Act of 2009 (Senate Bill x7-7 [SBx7-7]), which are included as **Appendix A**.

This 2010 UWMP was formatted to meet current requirements established by the California Department of Water Resources (DWR). **Appendix B** contains the District's completed DWR UWMP checklist. In order to comply with DWR requirements and facilitate the DWR review process, the DWR-required tables are identified in the dark blue table headers.

All dates presented in this document are in fiscal year (FY) unless otherwise stated.

1.2 Agency Coordination

CWC 10620(d)(2): #4: Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

CWC 10621(b): #6. Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision

CWC 10635(b): #54. The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

CWC 10642: #55. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.

Preparation of this 2010 UWMP update included all of the agency coordination activities required by the California Water Code. In conformance with California Water Code Division 6, Part 2.6, Section 10621(b), formal notification of preparation of the 2010 UWMP update was to be provided to all city and county agencies within the District's service area. The District serves potable and non-potable water to customers located within the City of Solana Beach, and the communities of Rancho Santa Fe and Fairbanks Ranch which are within the County of San Diego. As required by the Water Code, the City of Solana Beach and the County of San Diego were formally notified at least 60 day prior to the hearing for adoption of the 2010 UWMP. Copies of the City of Solana Beach and County of San Diego notification letters are included as **Appendix C**.

In addition to required city and county planning agency notification, the District also contacted other related agencies to solicit input on the 2010 UWMP update. **Table 1-1** summarizes the agencies notified.

Table 1-1: Coordination with Appropriate Agencies

Coordination with Appropriate Agencies (DWR Table 1)							
Coordinating Agencies	Participated In Developing The Plan	Commented On The Draft	Attended Public Meetings	Was Contacted For Assistance	Was Sent A Copy Of The Draft Plan	Was Sent A Notice Of Intention To Adopt	Not Involved / No Information
City of Solana Beach				√	√	√	
County of San Diego				√	√	√	
San Diego County Water Authority	√			√	√	√	
Rancho Santa Fe Association	√			√	√	√	
Rancho Santa Fe CSD				√	√	√	
Fairbanks Ranch Association				√	√	√	
Fairbanks Ranch CSD				√	√	√	
San Elijo Joint Powers Authority				√	√	√	
San Dieguito Water District				√	√	√	
Olivenhain Municipal Water District				√	√	√	

The following provides brief descriptions of each notified agency, and how the agency relates to the 2010 UWMP.

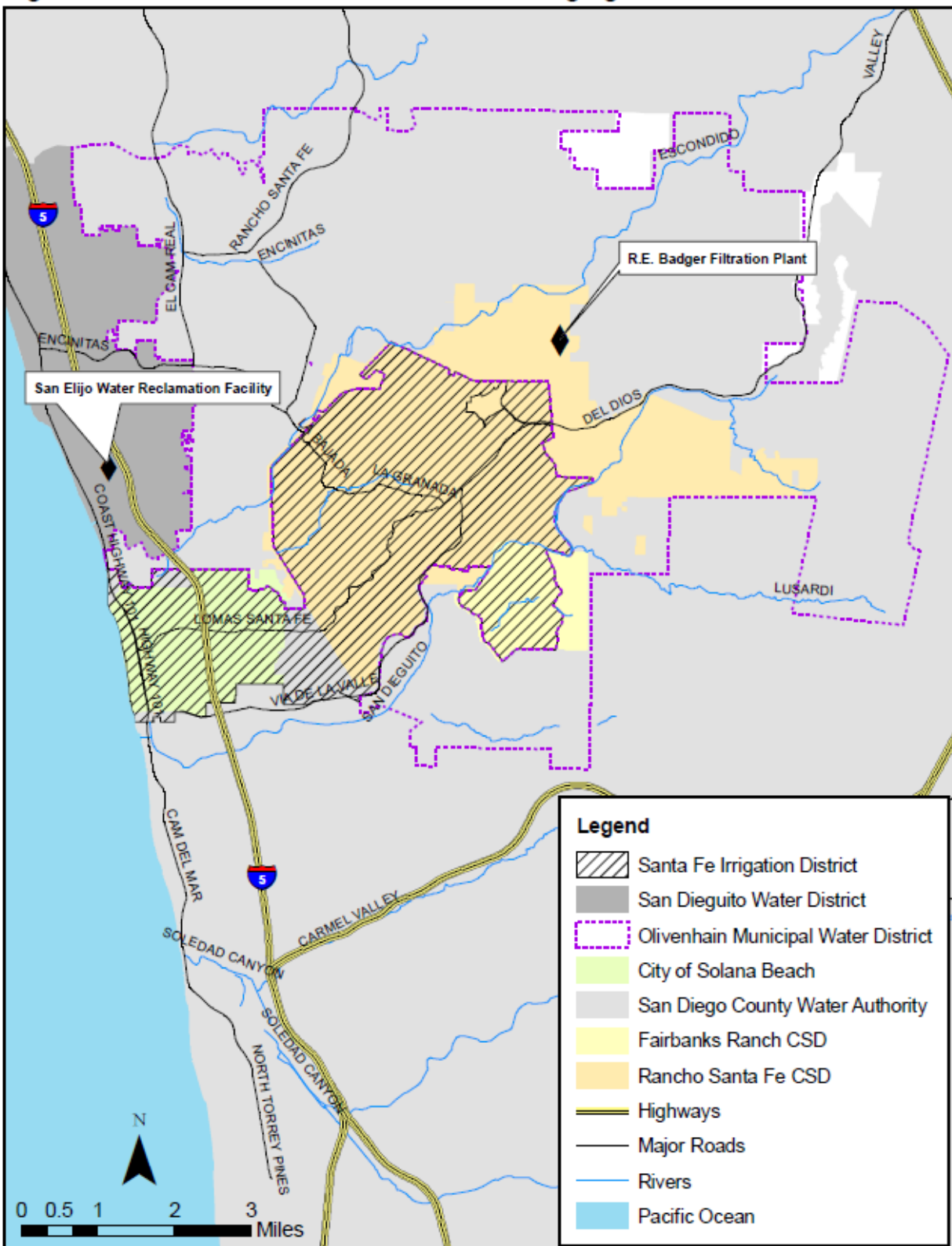
- **City of Solana Beach:** The District serves customers within the City of Solana Beach. Accordingly, 60-day advance notification was provided to the City pursuant to Water Code section 10621(b). The City of Solana Beach comprises approximately 2,850 acres (28%) of the District's 10,200-acre service area.
- **County of San Diego:** The District serves customers within the communities of Rancho Santa Fe and Fairbanks Ranch, which are within the County of San Diego. Accordingly, 60-day advance notification was provided to the County of San Diego pursuant to Water Code section 10631(b).
- **San Diego County Water Authority:** The District is one of twenty-four member agencies of the San Diego County Water Authority (Water Authority). Member agency status entitles the District to directly purchase water for its needs from the Water Authority on a wholesale basis. The District purchases imported raw water and imported treated water from the Water Authority. The District's water supply portfolio includes local potable and non-potable supplies, as well as imported raw and treated water supplies. The District looks to the Water Authority to ensure that adequate amounts of

imported water will be available to satisfy the imported water component of the District's supply portfolio.

- **Rancho Santa Fe Association:** The Rancho Santa Fe Association (RSFA) is a large homeowners association that covers the majority of the community of Rancho Santa Fe within the District's service area.
- **Fairbanks Ranch Association:** The Fairbanks Ranch Association (FRA) is a large homeowners association that covers the community of Fairbanks Ranch within the District's service area.
- **Rancho Santa Fe and Fairbanks Ranch Community Service Districts:** The Rancho Santa Fe and Fairbanks Ranch Community Service Districts (CSDs) provide wastewater treatment services to customers within the District's service area. The Rancho Santa Fe CSD comprises 6,490 acres (64%) of the District's service area and Fairbanks Ranch CSD comprises 920 acres (9%). At some time in the future, the CSDs may provide a source of recycled water to the District's service area.
- **San Elijo Joint Powers Authority:** The District purchases recycled water from the San Elijo Joint Powers Authority (SEJPA) at wholesale rates, for retail sale to District non-potable customers. SEJPA also provides wastewater treatment service to customers within the District's service area.
- **San Dieguito Water District:** The District and the San Dieguito Water District (SDWD) jointly own the 40 million gallons per day R.E. Badger Water Filtration Plant (Badger Plant). The Badger Plant treats local surface water and imported raw water to serve District and SDWD potable water supply needs.
- **Olivenhain Municipal Water District:** The Olivenhain Municipal Water District (OMWD) is a neighboring agency that shares multiple emergency potable water interconnections with the District.

Figure 1-1 provides a map of the District's service area and neighboring agencies.

Figure 1-1: District Service Area and Coordinating Agencies



1.3 Plan Adoption, Submittal, and Implementation

CWC 10621(c): #7. The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

CWC10642: #56: Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.

CWC 10642: #57. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

CWC 10643: #58. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

CWC 10644(a): #59. An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.

CWC 10645: #60. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

Prior to adoption, the District made this 2010 UWMP update available for public inspection and held a public hearing thereon. In accordance with the Act, the draft 2010 UWMP was made available for public review at the District's office, as well as in the City of Solana Beach and the communities of Rancho Santa Fe and Fairbanks Ranch. A copy of the plan was available on the District's website at: <http://www.sfidwater.org/>.

Prior to the public hearing, notice of the time and place of hearing was published on two successive weeks within the North County Times pursuant to Section 6066 of the Government Code. **Appendix D** contains documentation of this notification.

The 2010 UWMP update was adopted by the District's Board of Directors on June 16, 2011 at the Santa Fe Irrigation District Board Room, 5920 Linea del Cielo, Rancho Santa Fe, California 92067. No public comments were submitted on the draft 2010 UWMP. **Appendix E** contains the resolution adopting the 2010 UWMP. Within 30 days of adopting the 2010 UWMP, copies of the adopted plan will be submitted to DWR, the California State Library, the City of Solana Beach, and the County of San Diego. Within 30 days of submitting to DWR, the adopted plan will be made available to the public during normal business hours and will also be made available on the District's website at: <http://www.sfidwater.org/>.

The District will implement this UWMP update, including the Water Demand Reduction Plan outlined in Chapter 7, in accordance with the requirements established in the Urban Water Management Planning Act of 1983, as amended, and the Water Conservation Act of 2009.

Chapter 2 System Description

Chapter 2 provides a description of the District's service area, water supply system, population, climate, and demographics.

2.1 District History and Service Area

10631(a): #8. Describe the service area of the supplier.

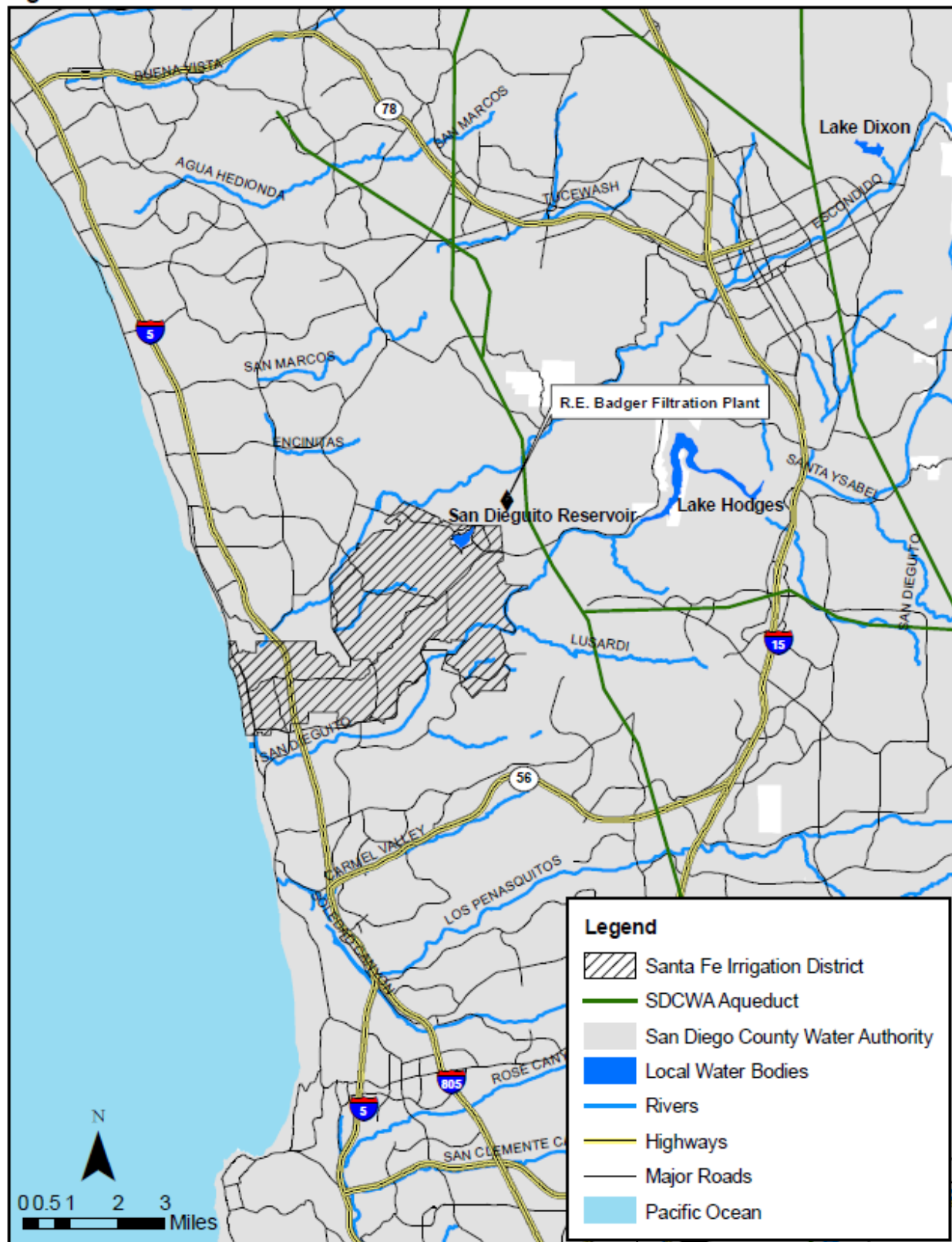
10631(a): #9. Describe the service area climate.

Santa Fe Irrigation District (District) was formed January 26, 1923 under the California Irrigation District Act. A Board of Directors composed of five members governs the District. The District provides retail water supply to approximately 19,400 residents within the City of Solana Beach, and the communities of Rancho Santa Fe and Fairbanks Ranch located within unincorporated areas of the County of San Diego. The District's 16-square mile area is supplied by three water sources: imported raw and treated water, local surface water, and recycled water.

The boundaries of the District's water service area are shown in **Figure 2-1**. The District service area contains approximately 10,200 acres, of which 2,850 acres are in Solana Beach, 6,490 acres are in Rancho Santa Fe, and 920 acres are in Fairbanks Ranch. The present population of the District is approximately 19,386, of which two-thirds is in the Solana Beach area. In fiscal year (FY) 2010, the District distributed approximately 11,208 acre-feet of potable water through 6,484 water meters and 504 acre-feet of recycled water through 47 meters. The District provides potable water service for domestic, commercial, outdoor irrigation, and agricultural demands. As a result of conservation efforts, the District's potable water demands have dropped substantially over the past two years. Demands for 2011 are expected to be substantially lower than demands for FY 2010. Projected demands and the impacts of conservation measures are described in detail in later chapters of this 2010 UWMP. Recycled water is used for irrigation of golf courses, parks, and other landscape irrigation demands. Further discussion regarding the District's recycled water supplies is also provided in Section 4.3 of this UWMP.

The District obtains its potable water supply from two sources: local surface water from Lake Hodges and imported raw and treated water purchased from the Water Authority. Lake Hodges was built in 1918 with the construction of Hodges Dam on San Dieguito Creek. The City of San Diego purchased the dam and reservoir in 1925. The District jointly retains water rights to the surface water in Lake Hodges through an agreement with the City of San Diego. When full, the reservoir has 1,234 surface acres and a water storage capacity of approximately 30,250 acre-feet (AF). Over the last decade, the District has obtained approximately 26% of its water from Lake Hodges. In the near future, the Water Authority is scheduled to begin using Lake Hodges to store water in conjunction with its Emergency Storage Project (ESP), and the lake will be connected to the Water Authority's aqueduct system. The use of capacity in Lake Hodges for ESP storage is not anticipated to impact the District's ability to collect and store the District's portion of local surface water supply.

Figure 2-1: District Service Area and Surface Water Bodies



The District joined the Water Authority in 1948 to acquire the right to purchase and distribute imported water throughout its service area. The Water Authority obtains imported water supply through the Metropolitan Water District of Southern California (MWD) and via transfer agreements with the Imperial Irrigation District (IID). Imported water supply is delivered to the San Diego region from MWD facilities at Lake Skinner in southern Riverside County. The District has historically obtained approximately 70% of its water from the Water Authority. Further information and discussion regarding wholesale water supplies available to the District are provided in Section 4.2 of this UWMP.

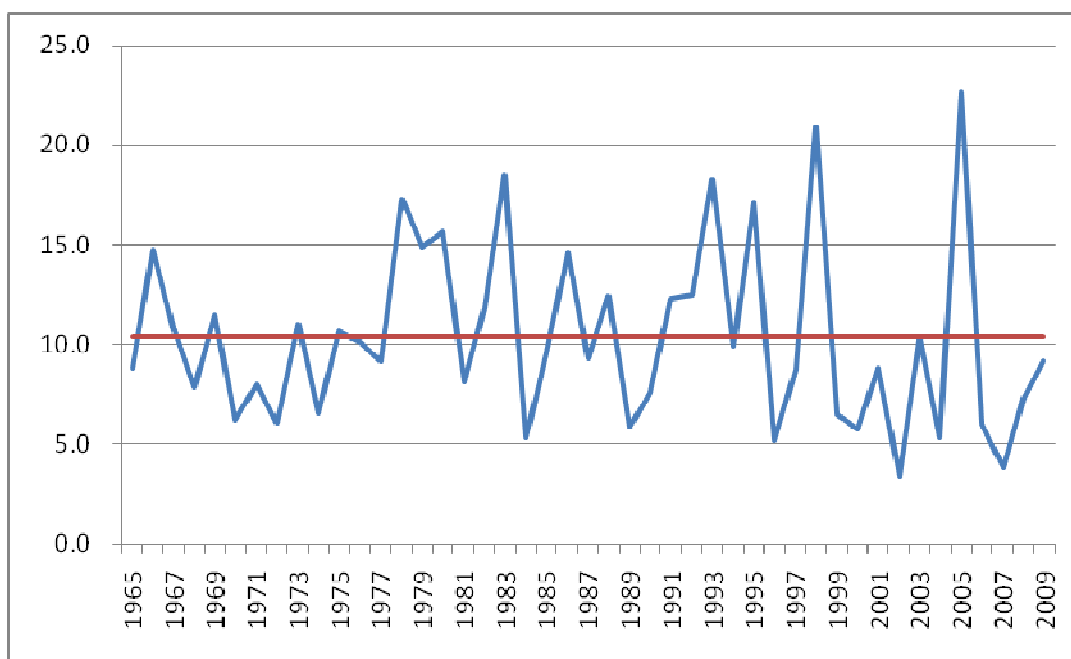
The District owns and maintains approximately 160 miles of pipeline and one above-ground storage reservoir with a capacity of 6.0 million gallons. The District's water distribution system consists of 14 pressure zones with 39 pressure-reducing stations and the Larrick Pump Station in Solana Beach. This pump station is used to keep pressures stable at peak demands in portions of the Solana Beach service area.

The R.E. Badger Filtration Plant (Badger Plant) was constructed in 1967 as a joint venture of the District and SDWD. Both local and imported raw water sources are delivered to the 40-million gallons per day (MGD) Badger Plant for treatment. Other water facilities jointly owned with SDWD include: approximately eight miles of transmission mains, two pumping stations, a 1.4 megawatt hydroelectric power plant, the 800 AF raw water San Dieguito Reservoir, and a 13-million gallon filtered water reservoir. The District is the operator and administrator for the joint water facilities. The historic Lake Hodges Dam Flume was taken out of service in August 2003 and replaced with a new raw water transmission system. The Rancho Cielo Raw Water Pump Station and 36-inch raw water pipeline was constructed to pump raw water from Lake Hodges directly to the Badger Plant. Local water can also be conveyed from Lake Hodges to the 800 AF San Dieguito Reservoir through a new 18-inch raw water pipeline that was installed in the old flume west of Del Dios Highway. The existing San Dieguito Pump Station pumps raw water from the San Dieguito Reservoir to the Badger Plant. Improvements have been installed within the San Dieguito Reservoir that enables it to pre-treat the raw water supply prior to conveyance to the Badger Plant. A treated water connection to the Water Authority's aqueduct provides additional supplies to meet peak demands or in the event the Badger Plant is out of service for maintenance.

Climate

The District serves an area that has a Mediterranean coastal climate. Summers are warm, mild and dry with average temperatures in the 70's, while winters are cool and mild with average temperatures in the 50's. The region is subject to wide variations in annual precipitation, ranging from a low of 3.4 inches to a high of 20.9 inches in the last half century. The mean average precipitation is 10.25 inches. **Figure 2-2** shows the range in annual precipitation between 1965 and 2009.

Figure 2-2: Annual Precipitation in the San Diego Region



Source: San Diego County Water Authority 2010a.

Further information and discussion regarding the potential effects of climate change on District water supplies are provided in Section 4.4 of this UWMP

2.2 Service Area Population

10631(a): #10. Describe the service area current and projected population...The projected population estimates shall be based on data from the state, regional, or local service area population projections within the service area of the urban water supplier...

10631(a): #11. (Population projections) shall be in five-year increments to 20 years or as far as data is available.

10631(a): #12: Describe...other demographic factors affecting the supplier's water management plan.

Table 2-1 shows the District's population total for 2010, with projections to 2035. Between 2010 and 2015, population is expected to increase by 2.3%. However, the District is relatively built-out and the population is projected to increase by only 11% between 2010 and 2035.

Table 2-1: Current and Projected Population

Population — Current and Projected (DWR Table 2)							
	2010	2015	2020	2025	2030	2035	Data source
Service Area Population	19,386	19,839	20,084	20,673	21,165	21,544	SANDAG 2050 Cities/Counties Forecast

The District's service area population projections are based on the San Diego Association of Government's (SANDAG) 2050 Regional Growth Forecast. The information included in Table 2-1 was obtained from the Water Authority, and the basis of the information was discussed with both the Water Authority and SANDAG. Under the terms of a 1992 Memorandum of Agreement between the Water Authority and SANDAG, the Water Authority utilizes SANDAG's official population forecasts to project consumptive water demands for the region. In order to develop the population projections, SANDAG extensively gathers information from a number of sources including city and county general and specific plans, U.S. Census Bureau data, County Assessor information, various standard demographic information including birth and death records, and other available land use and planning documents. Each year, SANDAG's findings are compared with State Department of Finance figures that consider drivers license data, tax records, and other pertinent demographic information. A key refinement of the 2050 Regional Growth Forecast was the inclusion of an economic outlook evaluation that factors in the current recession.

The Water Authority provides SANDAG with official boundary service area maps for each of its 24 member agencies. Based upon the specific member agency boundary areas, SANDAG provides the Water Authority with current and projected population, as well as historical population data. The District confirmed that the Water Authority utilized the most current service area boundary for the District.

Though the District is relatively built out, over the next 25 years there is a projected population growth of approximately 11 percent. The 2005 UWMP included population estimates that are higher than estimated in the Draft 2010 UWMP. Both documents utilized the latest available SANDAG regional population estimates for historic and projected population assumptions. Current SANDAG estimates include more conservative growth rate assumptions based upon a variety of available data sources. The 2005 UWMP predicted the District's population in 2010 would be 20,787. The Draft 2010 UWMP shows the estimated 2010 population is 19,386. The ultimate future population projections are similar for both documents. The 2005 UWMP assumes an ultimate population projection of 21,744 which is within 1% of the Draft 2010 projected 2035 population of 21,544.

Service Area Characteristics

The District's service area is characterized by low and very-low density urban development, including a large number of 3-acre and larger estate homes. Approximately 87% of the District's water demand is for residential uses. Of the residential acres currently developed, approximately two-thirds are low-density single-family parcels. Many of these low-density residential properties have extensive irrigated landscapes, and the District estimates that 70% of its service area water use is attributable to landscaping.

The District's service area is largely characterized by a relatively affluent population. A large portion of the Rancho Santa Fe and Fairbanks Ranch communities include large estates on large multi-acre properties. As further set forth in Chapter 7, this unusual characteristic of the District substantially affects standard water use comparison criteria such as gallons per capita per day (gpcd), and requires local knowledge of use patterns, landscaping, and other factors to encourage and achieve conservation objectives.

2.3 District Planning

In order to clearly define current and projected potable and non-potable water demands and reliable supply strategies, the District has developed multiple planning documents. In addition to agency-specific District planning documents, the District is an active participant in regional water resource management planning activities. This includes the development of the 2007 *San Diego Integrated Regional Water Management Plan* (IRWM Plan) (San Diego Regional Water Management Group and Regional Advisory Committee 2007). The following summarizes key District planning documents, which were used to develop the descriptions of District facilities in this UWMP. Copies of District planning documents can be found on the District's website at: www.sfidwater.org.

Integrated Water Resources Plan

The District's *Integrated Water Resources Plan* was completed in June 2007. The objective of the plan was "to define supply options to meet future demands cost-effectively while providing benefits defined by a set criteria consistent with the District's mission." Specifically, this plan analyzed different supply options that could be utilized as future water supply sources. The analysis looked at the feasibility and cost-effectiveness of each supply option in order to make recommendations for potential supply sources that can be utilized by the District to meet future projected water demands.

Recycled Water Master Plan

In 2005, the District completed a *Recycled Water Master Plan*. This plan was partially funded by a Proposition 13 grant in conjunction with the San Diego County Water Authority, and was completed to develop a strategic plan for expanding the distribution of recycled water within the District's service area. The plan analyzed four separate water supply sources, and ranked each of the sources for their overall cost and other key factors. The District is currently completing the Eastern Service Area Recycled Water Facilities Plan that builds upon the 2005 Recycled Water Master Plan to better define the improvements needed to use recycled water to offset potable water used by customers in the eastern portion of the District's service area.

Asset Management Master Plan

In March 2009, the District completed an *Asset Management Master Plan* which defines improvements for the next 10 years required to achieve water delivery performance requirements for both the distribution system and the Badger Plant. Several projects were identified in the plan that are a high priority for the District, and comprise its capital improvement program. These projects will allow the District to provide its customers with an adequate and reliable supply of quality water that meets the customer needs at a reasonable cost.

On an annual basis, the District's Board of Directors approves a Capital Improvement Budget with funding for projects identified in the *Asset Management Master Plan*.

Chapter 3 System Demands

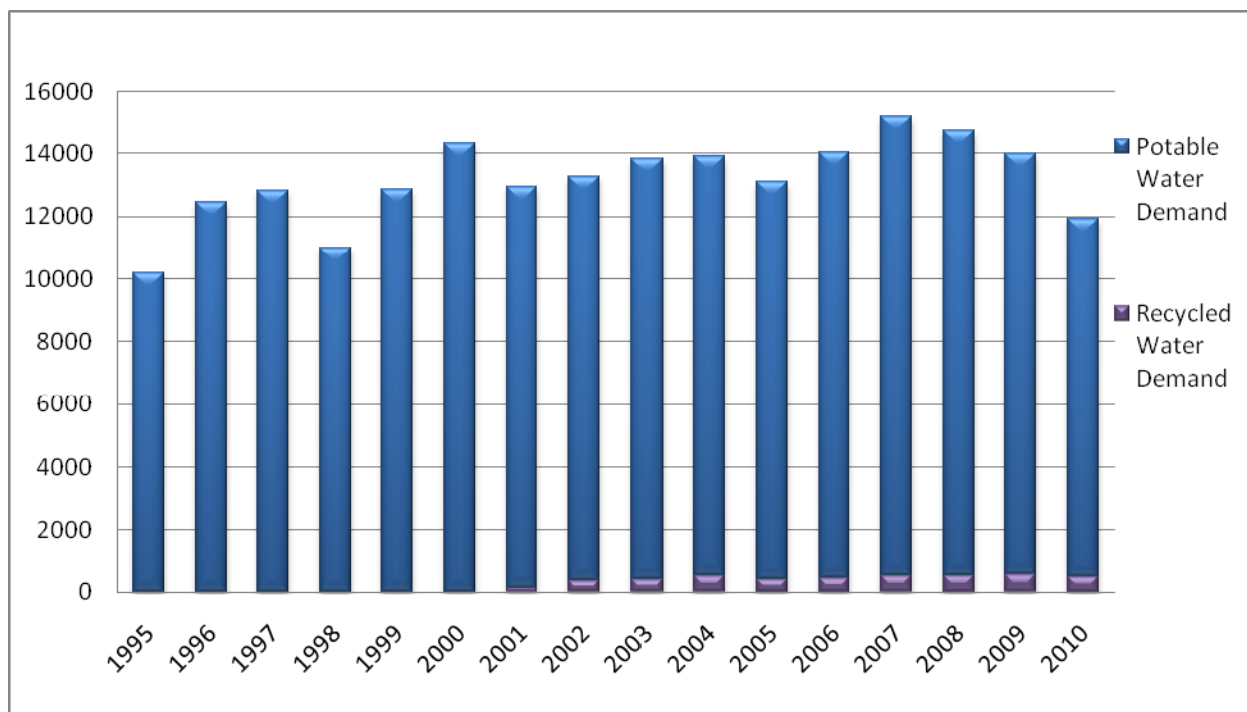
Chapter 3 describes the District's urban water system demands, including calculations of its baseline water use and urban water use targets. Current water system demand is quantified by category and projected over the UWMP planning horizon.

3.1 Historic Total Water Demands

10631(e)(1) and (2): #25. Quantify, to the extent records are available, past and current water [potable and non-potable] use, and projected water use (over the same five-year increments described in subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to all of the following uses: single-family residential, multifamily, commercial, industrial, institutional and governmental, landscape, sales to other agencies, saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; agricultural.

Figure 3-1 presents the historic total (potable and non-potable) water demands in the District since 1995.

Figure 3-1: Historic Total Water Demands (1995 – 2010)



In 2005, actual potable water deliveries totaled approximately 11,950 AF. Following a peak demand of 14,465 AF in 2007, actual potable water deliveries were reduced to approximately 11,208 AF in 2010 as a result of the District's comprehensive water conservation program. **Table 3-1** provides a breakdown of the water use sectors for the District's actual potable water deliveries for 2005 and 2010. As shown in Table 3-1, potable water use in 2010 was 740 acre-feet per year (AFY) lower (6%) than 2005 potable water use.

In FY 2011, it is estimated that the actual potable water deliveries in the District were further lowered to approximately 9,390 AF, a reduction of 16% in one fiscal year due to mandatory water use prohibitions, price elasticity, and sustained cooler than normal temperatures. The District's Board of Directors declared Drought Response Level 2 conditions on May 21, 2009, which required implementation of the Level 2 conservation measures described in Chapter 7 beginning on July 1, 2009. The District's Board of Directors adopted a new water rate structure in 2007, which implemented a tiered pricing structure. Subsequent water rate increases in each of the last three years have substantially reduced the amount of water consumption. This combination of factors resulted in substantially lower water demands in years 2010 and 2011.

The Urban Water Management Planning Act and the Water Conservation Act of 2009 require each urban water supplier to provide detailed data on current and projected water demands and supplies within its service area. In the guidance documents prepared by DWR – *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (2011a) (the DWR Guidebook) and *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (2011b) (the DWR Methodologies) – suppliers are encouraged to provide such data in tables within their UWMPs. The District has provided all relevant data tables in this UWMP update. In the header bar of each table, the District has identified the corresponding DWR table number for reference.

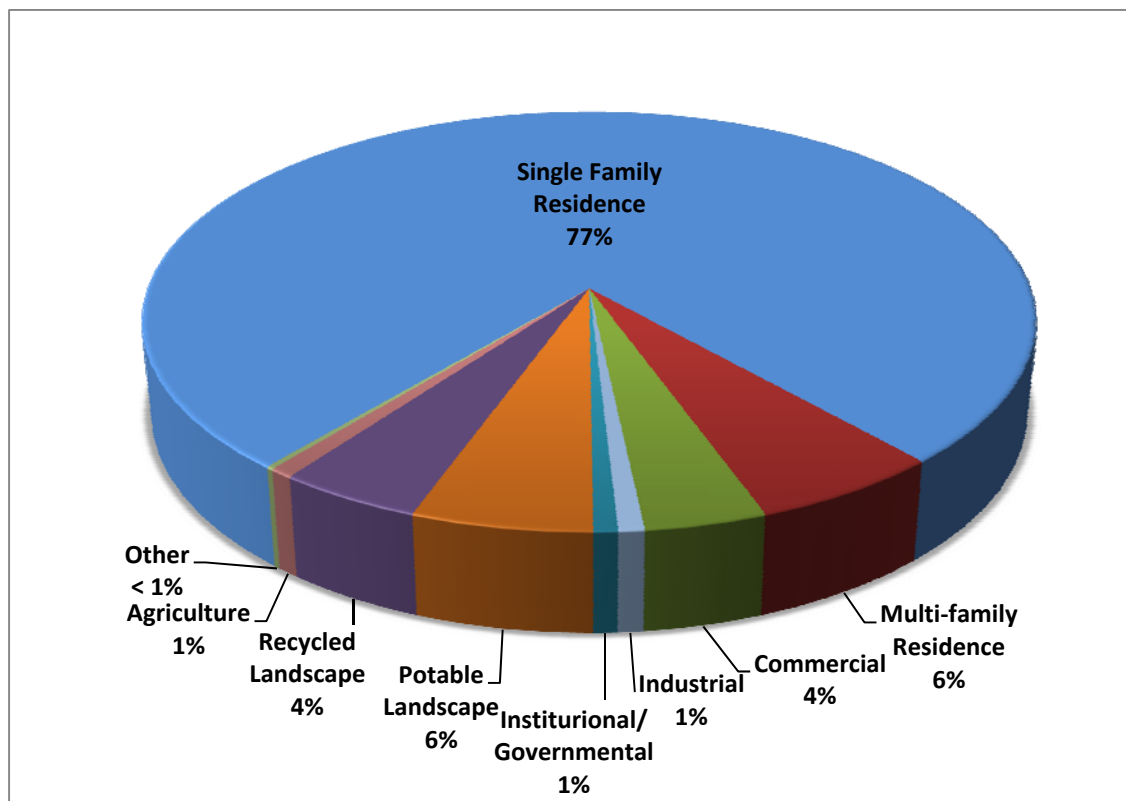
Table 3-1: Potable Water Deliveries, 2005 and 2010

Potable Water Deliveries — Actual, 2005 and 2010 (DWR Tables 3 and 4)					
	2005 and 2010				
	2005 Metered ¹		2010 Metered ¹		Change 2005-2010
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	5,406	9,554	5,454	9,076	(478)
Multi-family	470	817	464	713	(104)
Commercial	307	473	315	450	(23)
Industrial	49	164	43	95	(68)
Institutional/Governmental	30	105	34	90	(15)
Landscape	143	637	137	667	30
Agriculture	37	182	21	89	(93)
Other ²	16	18	16	27	9
Total	6,458	11,949	6,484	11,208	(741)
Units are in acre-feet per year .					
¹ All customers in the District's service area are metered.					
² "Other" includes temporary meters.					

In 2010, approximately 87% of the potable water use in the District's service area was for single-family and multi-family residential purposes. Potable water consumption totaled 4% to commercial uses, 6% to landscape uses, and 3% to industrial, institutional, and agriculture.

Figure 3-2 provides an overview of 2010 total (potable and non-potable) water demands by land use. When recycled water use is factored in to the District's portfolio, residential uses comprise 83%, commercial uses comprise 4%, and industrial, institutional, and agriculture comprises 3%. Recycled water used for landscape irrigation comprises 4% of total water use in the service area.

Figure 3-2: 2010 Total Water Demand by Land Use



3.2 Projected Total Water Demands

10631(e)(1) and (2): #25. Quantify, to the extent records are available, past and current water use, and projected water use (over the same five-year increments described in subdivision (a)), identifying the uses among water use sectors, including, but not necessarily limited to all of the following uses: single-family residential, multifamily, commercial, industrial, institutional and governmental, landscape, sales to other agencies, saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; agricultural.

10631.1(a): #34. The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079 of the Health and Safety Code, as defined in the housing element of any city or county, or any city and county in the service area of the supplier.

3.2.1 Demand Projection Methodology

From FY 2000 to 2009, the total water demand for the District has averaged 13,900 AFY. This includes approximately 13,400 AFY of potable water use and 500 AFY of recycled water use. As discussed in Section 3.1, the District implemented a comprehensive conservation program

between 2009 and 2011 that resulted in a remarkable response from the District's customers. Between 2009 and 2010, total demands dropped 15% from 13,979 to 11,912 (includes potable water, recycled water, and system losses). Actual demands for the first nine months of FY 2011, combined with the actual demands of the last three months of FY 2010, provide an estimated FY 2011 demand of 10,030 AFY. This is an additional 16% drop from FY 2010. The majority of the District's potable water demand is for landscape irrigation. It is clear that over the past two years, the District's customers have embraced enhanced conservation concepts and have adjusted their irrigation use patterns and volumes. Such practices include the substitution of non-native species with drought tolerant plants, and greater attention to irrigation system leaks and maintenance also appear to be more prevalent. In addition, the District's tiered rate structure encourages users to maximize the value of water.

Since the District is nearly built out, it was determined that future demands would be calculated by multiplying the population predicted by SANDAG (as discussed in detail in Chapter 2) by a gpcd factor that relates to the District's unique demand characteristics. Utilizing an average of the District's demands over the past several years would not be accurate since this approach would not recognize the recent dramatic drop in usage due to conservation measures. However, it also would not be practical to assume the current use patterns will be 100% sustainable. Note that in addition to conservation, 2011 has been unusually cool with higher than normal precipitation. Therefore, in projecting the demand for 2015, it was assumed that half of the 16% demand reduction between 2010 and 2011, or 8%, would rebound between 2011 and 2015. SANDAG projected the population would increase by 2.3% between 2010 and 2015. Therefore, the calculation of demand for 2015 includes an increase of the 2011 gallons per capita per day of 8% due to conservation rebound, multiplied by a population that is 2.4% higher than 2010. In subsequent years, the same gallons per capita per day value is used in 2015 was then applied to the population projections for 2020, 2025, 2030, and 2035. This approach assumes continued non-mandatory conservation will occur, but allows for some rebounding above the lowest demand year of 2011.

GPCD calculations were completed in accordance with Section D of the DWR Guidebook, which defines baseline daily per capita water use as "how much water is used within an urban water supplier's distribution system area on a per capita basis" (DWR 2011a). This should not be confused with the SBx7-7 water use target calculations established in the DWR Methodologies and presented in Section 3.4 of this UWMP.

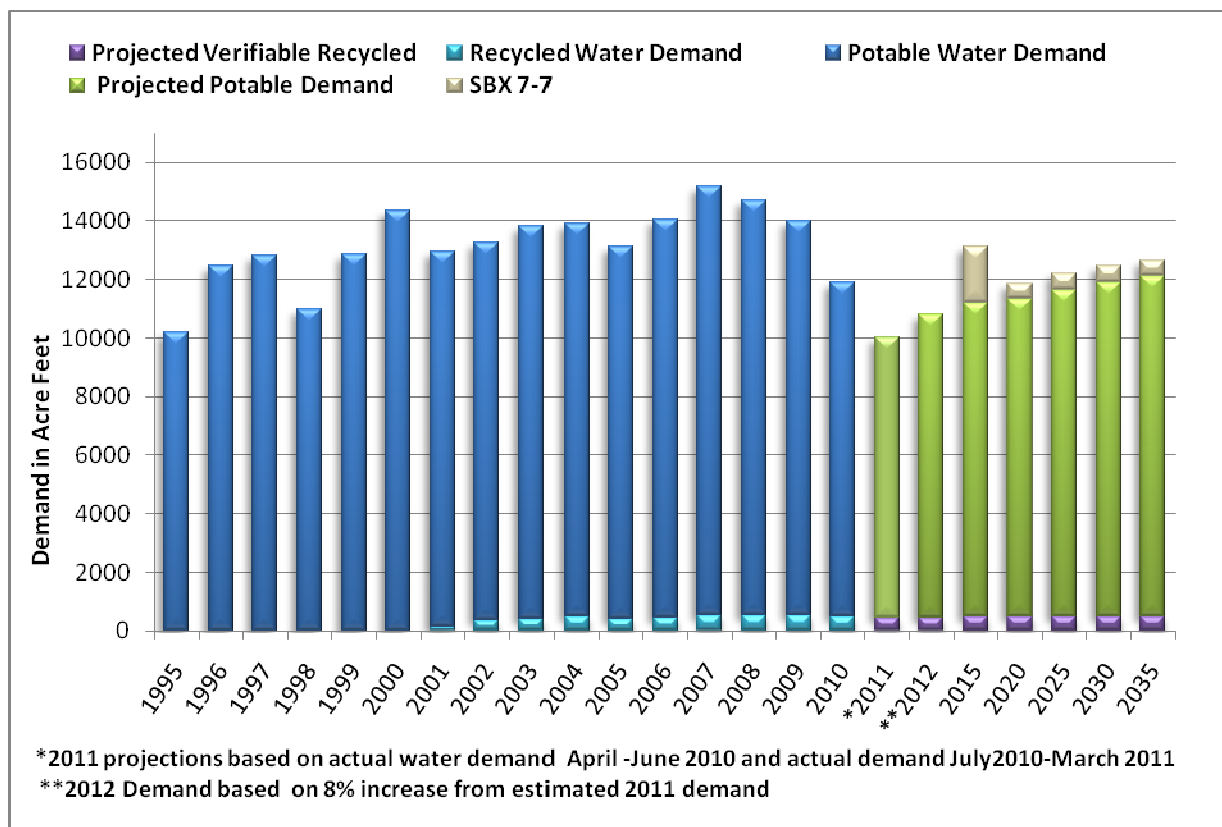
3.2.2 Potable Demand Projections

Figure 3-3 presents historic and projected water use within the District's service area. Figure 3-3 also shows the SBx7-7 targets discussed later in this section. As shown on the graph, assuming an 8% rebound between 2011 demands and 2015 demands, the District would still be able to achieve SBx7-7 compliance if District customers continue to embrace conservation.

Figure 3-3 also shows historic and future "verifiable" recycled water demands. Verifiable recycled water demands are those that are currently being served and are certain to be served in the future. The District has also identified planned future recycled water demands and is evaluating alternatives to serve those demands. Current and planned recycled water demands and supplies are discussed in Chapter 4.

Tables 3-2 and 3-3 provide projected potable water deliveries in the District for various water use categories. Recycled water demand is anticipated to increase as additional recycled water supplies and transmission infrastructure are made available (see discussion in Chapter 4). As shown, potable water demands are anticipated to increase by approximately 132 AFY or just over 1% between 2015 and 2020, with additional minimal growth through 2035.

Figure 3-3: Historic and Projected Total Water Use



Residential Water Use

As shown above in Figure 3-2, residential water use accounts for approximately 83% of total water demand within the District. Total housing units are comprised of a high percentage of single-family residences; 92% of all residential accounts are single-family structures, compared to a reported 60% throughout the Water Authority's service area. Multi-family units within the District are much less prevalent at 8% of residential accounts, compared to the Water Authority's reported 36% multi-family and 4% mobile homes (Water Authority 2010b).

As previously mentioned, water use within the District's service area is greatly influenced by weather conditions. Due to the large lot size and high irrigation demands throughout the service area, outdoor use accounts for about 70% of total residential water use within the District.

Table 3-2: Projected Potable Water Demands (2015 and 2020)

Water Deliveries — Projected, 2015 and 2020 (DWR Tables 5 and 6)					
	2015 and 2020				
	2015 Metered ¹		2020 Metered ¹		Change 2015-2020
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	5,461	8,507	5,529	8,615	107
Multi-family	465	668	470	677	8
Commercial	315	422	319	428	5
Industrial	43	89	44	91	1
Institutional/Governmental	34	84	34	85	1
Landscape	137	625	139	633	8
Agriculture	21	84	21	85	1
Other ²	17	25	17	26	0
Total	6,493	10,506	6,573	10,638	132
Units are in acre-feet per year .					
¹ All customers in the District's service area are metered.					
² "Other" includes temporary meters.					

Table 3-3: Projected Potable Water Demands (2025, 2030, and 2035)

Water Deliveries — Projected 2025, 2030, and 2035 (DWR Table 7)						
	2025		2030		2035	
	Metered ¹		Metered ¹		Metered ¹	
Water use sectors	# of accounts	Volume	# of accounts	Volume	# of accounts	Volume
Single family	5,805	8,872	5,943	9,087	6,049	9,253
Multi-family	494	697	506	714	515	727
Commercial	335	440	343	451	349	459
Industrial	46	93	47	96	48	97
Institutional/Governmental	36	88	37	90	38	91
Landscape	140	652	140	668	140	680
Agriculture	20	87	20	89	20	91
Other ²	18	26	18	27	18	28
Total	6,894	10,956	7,054	11,221	7,177	11,426
Units are in acre-feet per year .						
¹ All customers in the District's service area are metered.						
² "Other" includes temporary meters.						

Low-Income Residential

In 2006, the District passed Resolution 06-08 entitled *Adopting a Services Priority Policy for Lower Income Developments in Accordance with SB 1087*. This policy states that the District shall grant water and service priority to any proposed developments that include lower income households. In accordance with this policy, the District is committed to providing service priority, as necessary, to low income units as defined in Section 50079.5 of the Health and Safety Code. The District renewed that resolution in 2011; **Appendix F** includes a copy of the renewed Low Income Development Service Priority Resolution.

As noted previously, the District provides water services to the City of Solana Beach, and the communities of Rancho Santa Fe and Fairbanks Ranch within the County of San Diego. According to the *General Plan Update for the County of San Diego*, the San Dieguito Area (which contains Rancho Santa Fe) does not include any low income residential units (County of San Diego 2008). In addition to the General Plan, the community of Fairbanks Ranch has housing and land uses designated within a specific plan. The *Fairbanks Ranch Specific Plan* notes that residential units within the plan area are anticipated for purchase by families in the upper-middle and higher-income levels, and that building constraints do not allow flexibility of affordable housing (American Pacific Environmental Consultants 2006). Therefore, no low-income water demands were estimated for the portion of the District's service area that contains Fairbanks Ranch or Rancho Santa Fe.

The Housing Element for the City of Solana Beach reports that the City has one low-income single family unit and 48 low-income multi-family units, for a total of 49 units (SharePoint 2006). The Housing Element indicates that the City had a regional share of 67 very low- and low-income housing units through 2020, which means that 18 additional units are needed (SharePoint 2006). The density designated for these units ranged from two (2) to 20 dwelling units per acre, indicating that these units would likely be multi-family construction. This analysis assumed that future low-income households would use the equivalent multi-family water use identified in Tables 3-3 through 3-5 above, which projected use of approximately 1.5 AFY per meter. This analysis assumes a mean housing density of 8 units per multi-family meter, assuming that low-income housing units would generally be on the median to high end of the Solana Beach density range. Assuming an average density of 8 units per meter, each multi-family dwelling would require 0.18 AFY of water.

Table 3-4 below demonstrates future projected water demands for low-income residential unit growth. The table estimates that the one single-family unit uses 0.5 AFY and the 48 multi-family units use 0.18 AFY each, per the assumptions described above. The table projects that the additional units are divided evenly between 2015 and 2020 to meet Solana Beach's regional housing share; therefore, nine low-income units would be constructed in each 5-year increment. This analysis also projects continuation of the City's regional housing needs at nine units per each 5-year increment through 2035. As shown in Table 3-4, the demands for these units are extremely low compared to the overall demand of the system. These low-income demands are readily accounted for in Tables 3-2 and 3-3 above.

Table 3-4: Projected Low-Income Water Demands

Low-income Projected Water Demands (DWR Table 8)					
Low Income Water Demands	2015	2020	2025	2030	2035
Single-family residential	1	1	1	1	1
Multi-family residential	10	10	11	11	11
Total	11	11	12	12	12
<i>Units are in acre-feet per year.</i>					

Industrial and Commercial Water Use

The District has virtually no industrial water use; however, a wide variety of commercial activities flourish. From restaurants to antique shops, the District enjoys diverse commercial developments. In Rancho Santa Fe, high-end boutiques, real estate brokers, and financial institutions prevail. In the coastal community of Solana Beach, restaurants and retail shopping are found. These commercial uses consume approximately 4% of the District's water deliveries.

Commercial water use is similar in many respects to residential demands. Some of the seasonal variations impacting interior and exterior water use in the residential sector – namely landscape irrigation for storefront areas – are found in the commercial sector. Projected industrial and commercial demands are identified in Tables 3-2 and 3-3 above.

Agricultural Water Use

Within the District's service area, agricultural water use comprises less than 1% of total demands. Agricultural water use has declined within the District's service area over the past decade.

Surplus Water Users

The District currently serves 21 users that are not within the District boundaries. These customers are located within the City of San Diego, City of Del Mar, and OMWD service areas and are considered surplus water users. The District has included potable water demands for these surplus users in Tables 3-1, 3-2, and 3-3 in the single-family residential sector. The District does not sell water directly to any other water agencies. For this reason, DWR Table 9: Sales to Other Water Agencies was not included within this UWMP.

Emergency Interconnections

The District has emergency interconnections with the City of San Diego, the City of Del Mar, OMWD, and SDWD which are used for emergencies. Refer to Section 6.1, Water Shortage Emergency Response, for more information.

Additional Water Uses and System Losses

Additional water uses within the District's service area include recycled water for non-potable irrigation, and system losses. For planning purposes, the 2010 UWMP breaks down current and projected recycled usage into "Verifiable" and "Planned" usage. Verifiable recycled usage includes existing demands, and demands that have infrastructure in place and are ready to serve new recycled users. In order to establish conservative potable water demand and supply estimates, the 2010 UWMP considered only verifiable recycled water usage. This approach

compliments the approach used in the San Diego County Water Authority's 2010 UWMP. Historical recycled usage has been approximately 500 AFY. Recently, recycled use has decreased due primarily to the economy. The District is completing an expansion to the recycled water distribution system in order to initially serve approximately 50 AFY to a large user. This expansion of the system should enable the total current and projected verifiable recycled water usage to achieve the historic 500 AFY average. The District is also planning the expansion of recycled water usage, which is discussed in Chapter 4.

The District's distribution system is relatively efficient and experiences a low amount of system losses. System losses are estimated to total approximately 200 AFY or 1.7% of potable water demands. System losses were estimated by comparison of customer meter data to available water production data. **Table 3-5** summarizes the additional water uses and losses within the District.

Table 3-5: Additional Water Uses and Losses

Additional Water Uses and Losses (DWR Table 10)							
Water use ¹	2005	2010	2015	2020	2025	2030	2035
Verifiable Recycled Water ²	420	504	500	500	500	500	500
System losses	162	200	200	200	200	200	200
Total	582	704	700	700	700	700	700
Units are in acre-feet per year .							
¹ Any water accounted for in Tables 3 through 7 is not included in this table.							
² Additional planned recycled water use is discussed in Chapter 4							

Table 3-6 provides a summary of the total water use from 2005 through 2035 within the District's service area. This table includes all water consumption, sales to other agencies, and additional water uses and losses. The drop in total water use between 2010 and 2015 is attributed to water conservation practices initiated in 2010 as described in section 3.2.1 above. Total water use is anticipated to decrease from approximately 12,531 in 2005 to 12,126 in 2035, a decrease of 3% over the 30-year timeframe.

Table 3-6: Total Water Use

Total Water Use (DWR Table 11)							
Water Use	2005	2010	2015	2020	2025	2030	2035
Total water deliveries	11,949	11,208	10,506	10,638	10,956	11,221	11,426
Sales to other water agencies	0	0	0	0	0	0	0
System losses	162	200	200	200	200	200	200
Total Potable	12,111	11,408	10,706	10,838	11,156	11,421	11,626
Verifiable recycled water	420	504	500	500	500	500	500
Total Potable and Non-Potable	12,531	11,912	11,206	11,338	11,656	11,921	12,126
Units are in acre-feet per year .							

3.3 Wholesale Water Demand Projections

10631(k): #33. Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available...

The District receives water supply from three sources: imported raw and treated water from the Water Authority, local surface water from Lake Hodges, and recycled water from SEJPA. Table 3-7 provides information about the volume of water that the District has with each of these sources, as well as the demand projections that the District provided to the Water Authority for future and current water demands from 2010 to 2035.

Table 3-7: Total Demand Projections Provided to Wholesale Supplier

Retail Agency Demand Projections Provided To Wholesale Suppliers (DWR Table 12)							
Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
San Diego County Water Authority	No Set Limit	5,946	7,438	7,570	7,888	8,153	8,358
Lake Hodges	No Set Limit ¹	5,712	3,268	3,268	3,268	3,268	3,268
San Elijo Joint Powers Authority	No Set Limit ²	497	500	500	500	500	500
Units are in acre-feet per year .							
¹ District water right is based upon annual hydrological yield.							
² SEJPA has the ability to provide additional capacity. This table reflects verifiable recycled demands only.							

3.4 Baselines and Targets

10608.20(e): #1. An urban retail water supplier shall include in its urban water management plan...due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

Baseline Water Use

Senate Bill x7-7 (SBx7-7), the Water Conservation Bill of 2009, was enacted in California in November 2009. This bill set forth new requirements for UWMPs prepared by urban retail water suppliers, which are to be applied beginning with the 2010 UWMPs. The overall goal of this legislation is to reduce per capita urban water use by 20% by the year 2020 (also referred to as “20x2020”). In accordance with SBx7-7, urban retail water suppliers must first determine a baseline daily per capita water use. As further explained by the DWR Guidelines and the DWR Methodologies, this baseline should detail the amount of water used within the urban water supplier’s distribution service area on a per capita basis, using water use and population

estimates from two defined baseline periods. The two baseline periods to be used during the calculation of the base daily per capita water use are:

- 10- to 15-year continuous base period – “The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph 1 up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010” (Water Code section 10608.12 (1-2)).

- 5-year continuous base period – “For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 1, 2007, and no later than December 31, 2010” (Water Code section 10608.12(3).

Tables 3-8, 3-9, and 3-10 below provide an overview of the base period ranges.

Table 3-8: Base Period Ranges

Base Period Ranges (DWR Table 13)			
Base	Parameter	Value	Units
10- to 15-year base period	2008 total water deliveries	14,714	see below
	2008 total volume of delivered recycled water	535	see below
	2008 recycled water as a percent of total deliveries	3.6%	percent
	Number of years in base period	10	years
	Year beginning base period range	2000	
	Year ending base period range	2009	
5-year base period	Number of years in base period	5	years
	Year beginning base period range	2005	
	Year ending base period range	2009	
Units are in acre-feet per year .			

10-Year Baseline

Because the District’s recycled water use totaled less than 4% of total deliveries in 2008, the District has used a 10-year baseline to develop its per capita water use targets. This baseline was established based on the period of 2000 – 2009, which resulted in a base daily per capita water use of 631 gallons per capita per day (gpcd). **Table 3-9** shows the 10-year baseline calculations.

Table 3-9: Base Daily per Capita Water Use – 10 to 15-Year Range

Base Daily Per Capita Water Use — 10- to 15-Year Range (DWR Table 14)				
Base Period Year		Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year			
Year 1	2000	19,083	12,797,463	671
Year 2	2001	19,244	11,417,283	593
Year 3	2002	19,266	11,517,271	598
Year 4	2003	19,317	11,993,102	621
Year 5	2004	19,305	11,970,784	620
Year 6	2005	19,124	11,342,293	593
Year 7	2006	19,051	12,143,083	637
Year 8	2007	19,056	13,092,068	687
Year 9	2008	19,071	12,658,195	664
Year 10	2009	19,195	11,987,746	625
Base Daily Per Capita Water Use				631

5-Year Baseline

The District further calculated water use for a 5-year baseline period, and used that value to determine a minimum required reduction in water use by 2020. The 5-year baseline was established based on the period of 2005 – 2009, which includes a base daily per capita water use of 641 gpcd. This results in a minimum threshold of 609 gpcd (95% of 641 gpcd). **Table 3-10** shows the 5-year baseline calculations.

Table 3-10: Base Daily per Capita Water Use – 5-Year Range

Base Daily Per Capita Water Use — 5-Year Range (DWR Table 15)				
Base Period Year		Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year			
Year 1	2005	19,124	11,342,293	593
Year 2	2006	19,051	12,143,083	637
Year 3	2007	19,056	13,092,068	687
Year 4	2008	19,071	12,658,195	664
Year 5	2009	19,195	11,987,746	625
Base Daily Per Capita Water Use				641

Water Use Targets

After establishing its baseline water use, the District set an urban water use target that demonstrates planned daily per capita water use within the service area, taking into account existing and planned water conservation and recycled water practices. The District also

established an interim urban water use target that demonstrates the planned daily per capita water use in 2015. **Table 3-11** provides a summary of the District's 2020 and interim 2015 water use targets, established in accordance with SB x7-7.

2020 Water Use Target

DWR has established four technical methodologies that may be used to support a water supplier in determining its urban water use targets. The District has selected *Method 1: 80% of Base Daily Per Capita Water Use* as its means to determine a 2020 water use target. This method is defined within CWC§10608.20(b)(1) and is calculated as 80% of the water supplier's baseline per capita water use.

Using Method 1, the District has established a 2020 water use target of 505 gpcd, which is 80% of the base daily per capita water use of 631 gpcd. The District confirmed this target by comparing it against the minimum threshold of 609 gpcd (95% of 641 gpcd) determined by the 5-year baseline. Because the Method 1 target is more restrictive than the minimum threshold, the 505 gpcd water use target will be used.

2015 Interim Target

The 2015 interim target is established by calculating the sum of the base daily per capita water use of 631 gpcd and the 2020 target of 505 gpcd, and dividing in half. This results in a 2015 interim target of 568 gpcd.

Table 3-11: 2015 and 2020 Water Use Targets

2020 and 2015 Water Use Targets	
Base Daily Per Capita Water Use	631 gpcd
2020 Water Use Target – 80% of Base Daily Per Capita Water Use	505 gpcd
2015 Interim Target	568 gpcd

The District's demand projections presented in Table 3-2 to 2-8 are lower than the SBx7-7 targets established in accordance with the DWR Methodologies. The District's *Water Use Reduction Plan*, which describes how these water use targets will be achieved, is included within Chapter 7 of this UWMP update.

Chapter 4 Water Supplies

Chapter 4 describes the District's water sources, potential limitations (physical or institutional), water quality, and planned water supply projects.

4.1 District Water Sources

10631(b): #13. Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

10631(b): #14. (Is) groundwater identified as an existing or planned source of water available to the supplier?

10631(d): #24. Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

10633: #44. Provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

10631(i): #31. Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater as a long-term supply.

The District maintains a diverse water supply portfolio. Local water supplies include surface water from Lake Hodges that is treated at the District's Badger Plant, and recycled water purchased wholesale from SEJPA for resale to District customers. As a member agency of the Water Authority, the District's supplies also include raw imported water that the District treats at its Badger Plant, imported treated water, and other wholesale supplies available from the Water Authority's diversified water supply portfolio. A summary of current and projected water supplies is compiled within **Table 4-1**. Recycled water supplies shown in Table 4-1 reflect only verifiable recycled water demands. SEJPA has the capability to serve demands greater than the verifiable demands shown in Table 4-1.

Table 4-1: Current and Projected Water Supplies

Water Supplies — Current and Projected (DWR Table 16)							
Water Supply Sources		2010	2015	2020	2025	2030	2035
Water purchased from:	Wholesaler supplied						
San Diego County Water Authority	yes	5,703	7,438	7,570	7,888	8,153	8,358
Supplier-Produced Surface Water (Lake Hodges)		5,712	3,268	3,268	3,268	3,268	3,268
Verifiable Recycled Water (San Elijo Joint Powers Authority)		497	500	500	500	500	500
Total		11,912	11,206	11,338	11,656	11,921	12,126
<i>Units are in acre-feet per year.</i>							

Wholesale Water

The District has been a member agency of the Water Authority since 1948. Membership in the Water Authority was essential due to the fact that local water supplies (Lake Hodges) could not provide sufficient, reliable quantities to meet demands within the service area. A majority of the imported water purchased from the Water Authority is raw water that is treated at the District's Badger Plant. On occasion, treated imported water from the Water Authority is used to supplement supply at the Badger Plant. Section 4.2 below provides a detailed discussion of the Water Authority's wholesale water sources.

Wholesale Water Projections

In accordance with the Act, the District provided water use projections to the Water Authority (refer to Table 3-8 in Chapter 3) and the Water Authority provided a draft UWMP for the District's review and comment. The District does not have a fixed limit on the volume of water that can be acquired from the Water Authority. In its 2010 UWMP, the Water Authority confirms its ability to deliver the supplies needed by the District (to supplement the District's local resources) throughout the 20-year planning horizon. To this end, Section 10631(k) of the UWMP Act provides that the District may rely upon the water supply information provided by the Water Authority for purposes of quantifying the existing and planned amounts of imported water available to the District throughout the UWMP planning horizon, and for describing the reliability of that supply and vulnerability to seasonal or climatic shortages during average, single-dry and multiple-dry year periods.

The District's existing and planned wholesale potable supplies to be provided by the Water Authority are shown in **Table 4-2** and are discussed in further detail in Section 4.2 below.

Table 4-2: Existing and Planned Wholesale Supplies

Wholesale Potable Supplies — Existing and Planned Sources of Water (DWR Table 17)						
Wholesale potable sources ^{1,2}	Contracted Volume ³	2015	2020	2025	2030	2035
San Diego County Water Authority	No Set Limit	7,438	7,570	7,888	8,153	8,358
Units are in acre-feet per year .						

Local Surface Water

Since the turn of the century, the District and San Dieguito Water District (SDWD) have jointly maintained property rights to local surface waters entering Lake Hodges. At 347 square-miles, Lake Hodges has the largest drainage basin of any surface water source in the County of San Diego. When full, Lake Hodges spans 1,234 acres and holds approximately 30,000 AF of water. The District, SDWD, and the City of San Diego (City) have an agreement that defines property rights for the water entering Lake Hodges. The agreed annual yield is approximately 11,400 AFY. A copy of that agreement is included within **Appendix G**. In any single year, 50% of the annual hydraulic yield is the shared property of the District and SDWD, and the remaining 50% is the City's. The District and SDWD have rights to the first 5,700 AF entering the lake. Any surface runoff in excess of 11,400 AF is split 50/50 between the Districts and the City.

The District and SDWD have an agreement that approximately 57.3% the shared annual yield goes to the District and the remaining 42.7% goes to the SDWD. Since half of the agreed upon annual yield is 5,700 AFY, the District's estimated annual local yield is estimated as 57.3% of 5,700 AFY, or 3,268 AFY. Currently, there is no limit to the stored volume of water that the District and SDWD can remove from the lake. When the lake is full, this provides a potential supply of 30,000 AF to be shared by the District and SDWD.

The District and SDWD jointly own and operate the Badger Plant, which has a design capacity of 40 MGD. The Badger Plant treats local water supplied from Lake Hodges and imported raw water purchased from the Water Authority. In general, local Lake Hodges water is more challenging to treat due to water quality problems associated with eutrophication in the summer and heavy runoff in the winter. Local Lake Hodges water is conveyed to the District's San Dieguito Reservoir, where some pre-treatment takes place prior to delivery to the Badger Plant. Recent enhancements to the Badger Plant, and associated San Dieguito Reservoir, have improved the ability to treat water under more challenging conditions and have increased the use of this important local water supply. Over the last decade, about 26% of the District's supply was from local water, 70% was from imported raw water, and 4% was from recycled water.

Recycled Water

The District currently wholesale purchases approximately 500 AFY of reclaimed water from SEJPA for retail sale to existing District recycled water customers. The District currently serves multiple recycled water customers for the irrigation of golf courses, parks, green-belt areas, freeway medians, and other landscape irrigation uses. Section 4.3 below provides a detailed description of the recycled water planning and opportunities within the District's service area.

Groundwater

Currently, there is no use of groundwater sources by the District. In general, groundwater basins within the District's service area have high concentrations of Total Dissolved Solids (TDS). The potential use of groundwater was evaluated in the *Integrated Water Resources Plan*. However, due to cost and feasibility issues, it was determined that the District should not pursue groundwater sources at this time. Because the District does not currently use or plan to use groundwater, DWR Tables 18 – 20 relating to groundwater, were not included within this UWMP.

Transfers and Exchanges

The District does not have any supply transfer or exchange agreements. The Water Authority provides transfer and exchange supply capabilities as described in Section 4.2. The District maintains emergency interconnections and agreements with OMWD, City of San Diego, and the City of Del Mar to enhance reliability under emergency conditions.

Desalination

The District is not currently pursuing desalination. The Water Authority is pursuing construction of a regional seawater desalination plant, described under Section 4.2.

4.2 Water Authority Water Sources

The District's wholesale supplier, the Water Authority, has historically relied on imported water supplies purchased from MWD. In recent years, the Water Authority has diversified its supply portfolio through multiple alternatives described in this section.

MWD supplies consist of both Colorado River Aqueduct (CRA) supplies, as well as State Water Project (SWP) supplies from the State of California. The Water Authority is a member agency of MWD. While water deliveries from MWD vary over time, the Water Authority received 331,825 AF or approximately 21% of its water supply from MWD in 2010. The Water Authority anticipates that these supplies will fluctuate as they are supplemented with other supplies. As such, the Water Authority anticipates MWD supplies to be 339,820 AFY in 2015, 219,484 in 2020 (reflecting seawater desalination coming online), 250,393 in 2025, 283,201 in 2030, and 310,020 in 2035. MWD supplies are discussed in detail in the Water Authority's UWMP.

In 1998, the Water Authority formalized a Transfer Agreement as part of the *Quantification Settlement Agreement (QSA) for the Colorado River*. The QSA was executed by the Water Authority, Coachella Valley Water District (CVWD), IID, MWD, and the State of California. This agreement provides California a transition period to implement water transfers and supply programs that will reduce California's dependence upon the Colorado River and reduce the State's draw to its 4.4 million acre-foot basic annual apportionment. The QSA also commits the state to a restoration path for the environmentally sensitive Salton Sea and provides full mitigation for these water supply programs.

The QSA includes a water transfer from IID to the Water Authority, which allows the Water Authority to receive additional imported water from the CRA. In 2010, the Water Authority received 70,000 AF of imported water through the QSA, and this supply is anticipated to increase each year until 2021 when the Water Authority expects to receive their full allocation amount of 200,000 AFY. The Water Authority also receives an additional 77,000 AF of water in exchange for projects to line the All-American and Coachella canals, which are part of the QSA. These projects are anticipated to stop the loss of water through seepage, thereby conserving 77,000 AF of water, which the Water Authority is contracted to receive for 110 years. In addition, the Water Authority could potentially receive up to an additional 4,850 AFY through this exchange agreement, for a total of up to 81,150 AFY. This will provide the San Diego region with an additional 8.5 million acre-feet of water over the 110-year life of the agreement (Water Authority 2010b).

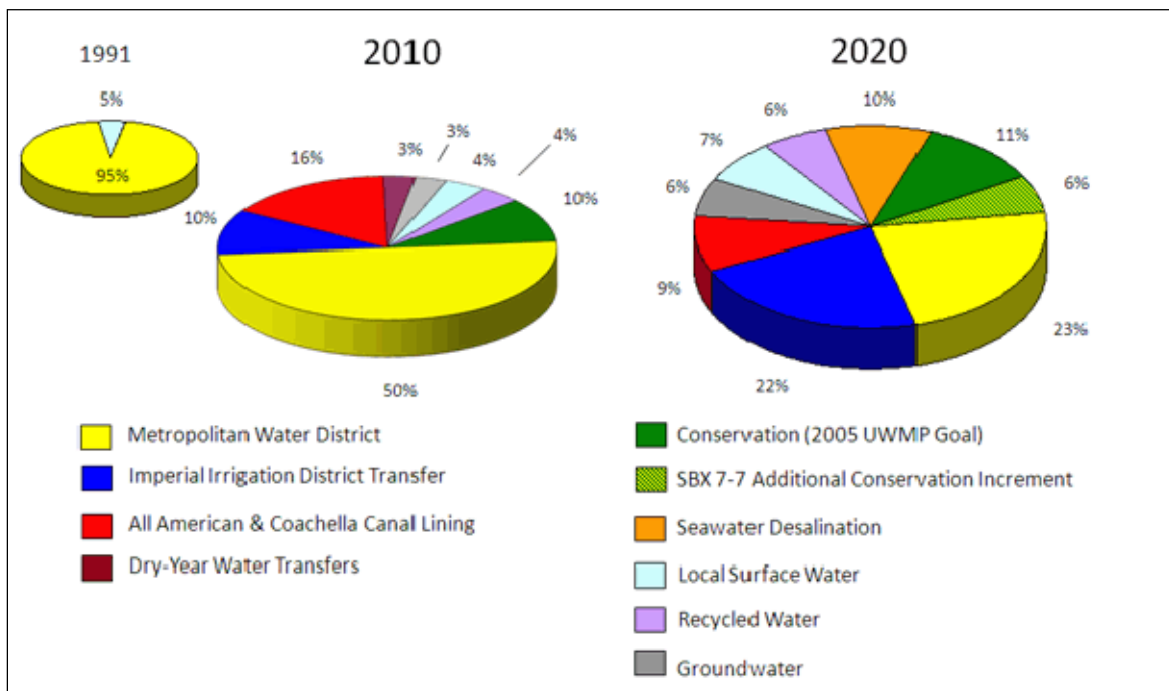
In November 2003, multiple suits were filed regarding the Transfer Agreement and the QSA, and the decision of these suits is still pending. In January 2010, the California Superior Court ruled that the QSA and 11 related agreements were invalid and in violation of the California Constitution. Issues related to the QSA are now being addressed by the Court of Appeal, which has determined that the transfer agreements will continue to be implemented while litigation on this matter is pending.

In total, the Water Authority received 70,000 AF of water from IID transfer supplies in 2010, and anticipates this number increasing to 100,000 AFY in 2015, 190,000 AFY in 2020, and 200,000 AFY from 2025 to 2035. The Water Authority also received 80,200 AF of water from All-American and Coachella lining projects in 2010, and this supply is anticipated to remain constant through 2035 (Water Authority 2010b).

While the Water Authority has historically relied on imported water for the majority of their water supplies, they have made a determined effort to diversify their supply portfolio. **Figure 4-1** below demonstrates the Water Authority's supply in 1991, which was predominately MWD imported water, highlights the water supply changes that have occurred since that time, and

demonstrates that in the future the Water Authority intends to continue diversifying supply sources.

Figure 4-1: Diversification of Water Authority Supplies



Desalinated Water

The Water Authority is working on developing a desalinated water supply, as further documented in the Water Authority's *2004 Annual Water Supply Report – Supply Reliability Through Diversification* and the Water Authority's *2010 UWMP*. The development of seawater desalination in San Diego County will assist the region in diversifying its water resources, reducing dependence on imported supplies, and providing a drought-proof, locally treated water supply. The Water Authority has been evaluating seawater desalination as a potential reliable local water resource since the 1990s. The cost of seawater desalination has decreased over the last 15 years due to the technological advances in the development and manufacture of reverse osmosis membranes used in the desalination process. The Water Authority expects desalinated water to provide 8% of the region's supply by the year 2020 (Water Authority 2010b).

The Water Authority's current seawater desalination efforts are focused on the Carlsbad Seawater Desalination Project, because it is fully-permitted and a conveyance pipeline for the system is under construction. The project, located at the Encina Power Station in Carlsbad, is being constructed by Poseidon, a private investor-owned company that develops water and wastewater infrastructure. In July 2010, the Water Authority Board of Directors approved a Term Sheet between the Water Authority and Poseidon and directed staff to prepare a Water Purchase Agreement based on its provisions. This desalination project is expected to provide a highly-reliable 56,000 AFY supply for the region by 2020 (Water Authority 2010b).

In addition, the Water Authority is considering implementation of the Marine Corps Base (MCB) Camp Pendleton Seawater Desalination Project that would be constructed on MCB Camp

Pendleton in northern San Diego County. This project is in the conceptual design phase, and a feasibility study for a potential 50 to 150 MGD seawater desalination project near the mouth of the Santa Margarita River was finalized in 2009. In April 2010, SDCWA formalized a Memorandum of Understanding with MCB Camp Pendleton, which would facilitate completion of further technical evaluations for this project (Water Authority 2010b).

4.3 Recycled Water Opportunities

10633(a): #45. Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

10633(b): #46. Describe the quantity of treated wastewater that meets RW standards, is being discharged, and is otherwise available for use in a recycled water project.

10633(c): #47. (Describe) the recycled water currently being used in the supplier's service area, including but not limited to the type, place, and quantity of use.

10633(d): #48. (Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, IPR, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

10633(e): #49. (Describe) the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

10633(f): #50. (Describe the) actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

10633(g): #51. Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use (10633(g)).

Wastewater Collection and Treatment

Within the District's service area, wastewater is collected by the City of Solana Beach, the Rancho Santa Fe CSD, and the Fairbanks Ranch CSD. The approximate amount of wastewater that is collected and treated within the District's service area is summarized within **Table 4-3** and described in the following sections.

Wastewater from the City of Solana Beach is sent to SEJPA where it is treated to various levels and reused as recycled water. SEJPA owns and operates the San Elijo Water Reclamation Facility (SEWRF), a regional Title 22 treatment facility located in Cardiff-by-the-Sea. The SEWRF serves all or part of the City of Solana Beach, City of Del Mar, City of Encinitas, and portions of the County of San Diego.

Table 4-3: Wastewater Collection and Treatment

Recycled Water — Wastewater Collection and Treatment (DWR Table 21)							
Type of Wastewater	2005	2010	2015	2020	2025	2030	2035
Wastewater collected & treated in service area	1,070	1,457	1,738	1,844	1,939	2,080	2,282
Volume available to serve District recycled water demands/standards (San Elijo Joint Powers Authority)	494	497	800	800	1,200	1,200	1,200
<i>Units are in acre-feet per year.</i> <i>Note that other recycled water supplies may be available from neighboring agencies that do not provide wastewater treatment within the District's service area (i.e., City of San Diego's recycled water system adjacent to the District's southeastern boundary)</i>							

The SEWRF has a total treatment capacity of 5.25 MGD. The SEWRF has a tertiary treatment system with a rated capacity of 2.48 MGD (2,780 AFY). The SEWRF currently serves the District's verifiable recycled demand of approximately 500 AFY. As summarized in Table 4-3, SEJPA Staff has indicated that the SEWRF's tertiary facilities can produce sufficient tertiary effluent to also serve the Districts planned recycled water demands. As described later in this section, the District is also considering other potential recycled water supply sources to serve the District's planned recycled water demands.

The SEWRF tertiary facility produces high-quality disinfected tertiary recycled water suitable for most irrigation uses. Recycled water from the SEWRF enters a 25,000-gallon clearwell, where it is then pumped into two separate distribution systems supplying three different communities. The North Distribution System serves the City of Encinitas and SDWD, and the South Distribution System serves customers within the District (City of Solana Beach Area) and the City of Del Mar. The South Distribution System includes 4- to 24-inch pipelines, the Lomas Santa Fe Reservoir, and the Lomas Santa Fe Booster Pump Station.

The Rancho Santa Fe CSD serves 10,415 acres within the unincorporated community of Rancho Santa Fe. Rancho Santa Fe CSD owns and operates the Rancho Santa Fe Water Reclamation Facility (RSFWRF). The design capacity of the RSFWRF is 0.45 MGD (504 AFY). All of the wastewater collected by the RSFWRF is treated to secondary treatment level and disposed of on-site in percolation beds. Effluent from the RSFWRF has high TDS concentrations, therefore tertiary treatment and demineralization facilities would be required to use effluent from the RSFWRF for recycled water uses. **Table 4-4** below demonstrates the amount of wastewater that is currently and anticipated to be treated by the Rancho Santa Fe CSD.

The Fairbanks Ranch CSD encompasses about 1,240 acres and is almost completely built out. The Fairbanks Ranch Wastewater Treatment Plant (FRWTP) incorporates a modified secondary treatment process, and is rated at a capacity of 0.2 MGD (251 AFY). It is currently being expanded to a plant capacity of 0.275 MGD (308 AFY). Wastewater effluent is treated and disposed of primarily through four percolation ponds on a lot adjacent to the San Dieguito River. Four additional interim/emergency percolation ponds are located adjacent to the treatment plant. Table 4-4 demonstrates the amount of wastewater that is currently and anticipated to be treated by the Fairbanks Ranch CSD. While the Fairbanks Ranch CSD does not currently treat

wastewater to Title 22 standards, the CSD could potentially add tertiary treatment facilities in the future, pending results of an ongoing feasibility analysis. Due to high TDS levels, demineralization facilities would also be required.

Table 4-4: Non-Recycled Wastewater Disposal

Recycled Water — Non-Recycled Wastewater Disposal (DWR Table 22)							
Method of disposal	Treatment Level	2010	2015	2020	2025	2030	2035
Rancho Santa Fe CSD	Secondary	394	464	533	603	672	728
Fairbanks Ranch CSD	Secondary	262	274	285	297	308	317
Total		656	738	818	900	980	1,045
<i>Units are in acre-feet per year.</i>							

Existing and Potential Recycled Water Demand

Within the District’s service area, approximately 500 AFY of recycled water is currently supplied to customers within the western portion of the District (primarily within the City of Solana Beach) through 47 irrigation meters. The District currently serves a variety of recycled water uses including parks, golf courses, green belt irrigation, schools, freeway medians, and other landscape irrigation uses. All of the existing recycled users were potable water customers that were converted to recycled water users.

Recently, recycled water use has declined due primarily to economic issues. The District is completing an extension to the recycled distribution system in the western portion of the service area to serve a park and other users. This project will initially offset approximately 50 AFY of current potable water demand in the western service area. The additional 50 AFY should enable the District to sustain its historic “verifiable” usage of 500 AFY.

The District completed a comprehensive *Recycled Water Master Plan* in 2005 that identified over 1,300 AFY of potential recycled water demand in the District’s eastern service area. Since the District is nearly built out, virtually all of the potential recycled water demands in the eastern service area would offset current potable demands. The District is currently completing the *Eastern Service Area Recycled Water Facilities Plan* to better define recycled water demands in the eastern service area and the most viable recycled water supply and delivery facilities to serve these demands. The *Eastern Service Area Recycled Water Facilities Plan* has determined that a demand of approximately 700 AFY could be readily accessed by backbone recycled distribution pipelines. A phased implementation plan is being developed that assumes approximately 300 AFY of planned recycled water use may be implemented by 2015, and the remaining 400 AFY may be implemented by 2025. The District is currently considering three potential recycled water supply options to serve eastern service area planned recycled water demands. The options include the SEJPA that currently produces enough tertiary effluent to serve the District’s projected demands; the City of San Diego that has a potential recycled water distribution system connection point adjacent to the District’s eastern service area boundary that could serve the District’s projected demands; and the CSDs that would require implementation of tertiary and demineralization facilities to accommodate a portion of the District’s projected demands.

Table 4-5 provides estimates of the District’s total projected recycled water use (including verifiable and planned demands) based on recent planning documents. The table demonstrates that recycled water is anticipated to be used for landscape irrigation and golf course irrigation purposes in the foreseeable future.

Table 4-5: Recycled Water – Verifiable and Planned Potential Future Use

Recycled Water — Verifiable and Planned Potential Future Use (DWR Table 23)							
User type	Description	Feasibility	2015	2020	2025	2030	2035
Landscape irrigation	Title 22 Recycled Water	Technically and economically feasible.	200	200	600	600	600
Golf course irrigation	Title 22 Recycled Water	Technically and economically feasible.	600	600	600	600	600
Total			800	800	1,200	1,200	1,200
Units are in <i>acre-feet per year</i> .							

Table 4-6 shows that in 2010, actual uses of recycled water were 186 AFY and 318 AFY for landscape irrigation and golf course irrigation, respectively. The District’s 2005 UWMP anticipated that these values would be 200 AFY and 600 AFY, respectively. The 2005 UWMP assumed that expansion of recycled water to the District’s eastern service area would be implemented by 2010.

Table 4-6: 2005 UWMP Use Projection Compared to 2010 Actual

Recycled Water — 2005 UWMP Use Projection Compared to 2010 Actual (DWR Table 24)		
Use type	2010 Actual Use	2005 Projection for 2010 ¹
Landscape irrigation	186	200
Golf course irrigation	318	600
Total	504	800
Units are in <i>acre-feet per year</i> .		
¹ From the 2005 UWMP.		

Optimizing the Use of Recycled Water

To enable a recycled water purchase rate that encourages customers to convert to recycled water, working collaboratively with SEJPA, the District has acquired financial incentives offered by MWD and the Water Authority. The projected results of these actions are incorporated in the estimates for projected water use (verifiable and planned) provided in **Table 4-7**. Funds from these programs are anticipated to provide for existing and future District projects, as further described below:

MWD’s Local Resources Program: MWD’s Local Resources Program (LRP) subsidizes up to \$250 per AF of water produced from recycled water and groundwater recovery projects.

This program currently provides subsidies to 14 water and wastewater agencies within San Diego County.

Water Authority's Local Water Supply Development Program: The Local Water Supply Development (LWSD) Program was designed to ensure the financial feasibility of local water recycling projects during their initial operational years. This program provides a maximum of \$200 per AF of recycled water.

Table 4-7: Methods to Encourage Verifiable and Planned Recycled Water Use

Methods to Encourage Verifiable and Planned Recycled Water Use (DWR Table 25)						
Actions	Projected Results					
	2010	2015	2020	2025	2030	2035
MWD's Local Resources Program	250	400	400	600	600	600
Water Authority's Local Water Supply Development Program	250	400	400	600	600	600
Total	500	800	800	1,200	1,200	1,200
<i>Units are in acre-feet per year.</i>						

In addition, the District has implemented the following programs to encourage customers to convert to recycled water:

Loan Program: A loan program to finance customer retrofits was initiated in 2001. A discount currently built into the recycled water price is deferred until the loan obligation is satisfied.

Technical Assistance: District staff offers technical assistance to existing and potential recycled water customers. Recycled water customers can call upon trained experts to assist with any water quality, quantity or pressure concern.

Recycled Water On-site Retrofit Surveys: In order to define on-site retrofit requirements and costs the District recently developed recycled water on-site retrofit surveys for several potential customers in the western portion of the District's service area. The surveys stimulated the implementation of multiple on-site retrofit improvement projects.

Public Outreach: The District has developed public outreach efforts, such as printed brochures and an expanded website, to inform residents and interested parties during the planning, design, and construction phases of water recycling facilities. This public outreach effort will become even more important as the recycled water system is expanded and smaller privately owned sites are connected.

Mandates and Resolutions: The District's Board of Directors has passed resolutions mandating the use of recycled water. Resolution No. 90-13 amends the Emergency Water Management Program to require the use of recycled water, when available, for the irrigation of greenbelts, cemeteries, golf courses, parks and highway landscaped areas. Resolutions 95-15 and 97-25 further establish rules and regulations for reclaimed and non-potable water service.

4.4 Effects of Climate Change

In 2009, DWR released an update of the California Water Plan which provides strategies and information designed to address statewide priorities for water management. This document notes that climate change has already impacted statewide water resources by reducing California's snowpack and increasing the frequency and intensity of floods (DWR 2009).

The California Water Plan Update 2009 also describes future anticipated impacts of climate change related to water supply, ecosystems, water and power operations, flooding and drought, and coast and Delta resources. **Table 4-8** describes possible changes that DWR anticipates will occur to California's water regime as a result of climate change (DWR 2009).

In addition to DWR's climate change assessment discussed above, the Water Authority's 2010 UWMP analyzes the potential influence climate change may have on the San Diego region's projected water resource portfolio. This document notes that while there are many uncertainties on the precise impacts that climate change will have on water resources, it is possible that climate change could influence long-term water supply reliability. The effects of climate change on availability of wholesale water supplies are discussed qualitatively in the Water Authority's UWMP.

Table 4-8: Potential Climate Change Impacts

Potential Climate Change Impacts
<p>Water Supply:</p> <ul style="list-style-type: none"> • Reductions in the California snowpack will change water supplies; • Changes in river flows may impact water supply, water quality, fisheries, and recreational activities.
<p>Ecosystems:</p> <ul style="list-style-type: none"> • Forests, which are important contributors to water supply and water quality will be more vulnerable to pests, disease, changes in species composition, and fire; • Increases in water temperature and reductions in cold water in upstream reservoirs may hurt spawning and recruitment success of native fishes; • Lower streamflows will tend to concentrate urban and agricultural runoff, creating more water quality problems.
<p>Water and Power Operations:</p> <ul style="list-style-type: none"> • Operation of the water system for urban, agricultural, and environmental water supply and for flood management will become increasingly difficult because of the decisions and trade-offs that must be made; • California's hydroelectric power generation may be less reliable. At the same time, higher air temperatures may increase energy consumption through increased use of air conditioning; • Water supply reliability will be compromised; • Warmer temperatures will affect water demands.
<p>Flooding and Drought:</p> <ul style="list-style-type: none"> • Increased flooding potentially causes more damage to California's levee system; • Higher temperatures and changes in precipitation will lead to droughts.
<p>Coast and Delta Resources:</p> <ul style="list-style-type: none"> • Higher water temperatures will make the Bay-Delta intolerable to some native species and also more attractive to some non-native invasive species that may compete with natives for resources; • Increased salinity in the Bay-Delta will degrade drinking and agricultural water quality and alter ecosystem conditions; • Sea level rise threatens coastal communities and infrastructure, in particular the water system in the Bay-Delta where the existing levees were not designed or constructed to withstand these higher water levels.
Source: DWR California Water Plan 2009 Update

4.5 Future Water Projects

Limited growth in population and water demands are expected by the District over the next 20 years, so no major projects are planned to accommodate growth. The District developed a comprehensive *Asset Management Master Plan* (2009) that defines capital improvements required to replace aging treatment and distribution infrastructure. The *Asset Management Master Plan* identified a 10-year Capital Improvement Program with infrastructure replacement and enhancement projects totaling over \$60 million.

The District is also evaluating the expansion of the recycled water distribution system as described in Section 4.3 above. **Table 4-9** summarizes the planned recycled water expansion projects within the District's service area. Design of Phase I of the Eastern Area Recycled Water expansion is anticipated to begin in 2013 and would supply 300 AFY of water. Phase II of the Eastern Area Recycled Water expansion is anticipated to begin in 2023 and would expand recycled water supplies by an additional 400 AFY.

Table 4-9: Future Water Supply Projects

Future Water Supply Projects (DWR Table 26)								
Project name	Projected start date	Projected completion date	Potential project constraints	Normal-year supply	Single-dry year supply	Multiple-dry year first year supply	Multiple-dry year second year supply	Multiple-dry year third year supply
Eastern Area Recycled Water Phase 1	2013	2015	Facility planning is underway. Constraints include capital costs.	300	300	300	300	300
Eastern Area Recycled Water Phase 2	2023	2025	Facility planning is underway. Constraints include capital costs.	400	400	400	400	400
Total				700	700	700	700	700
<i>Units are in acre-feet per year.</i>								

Chapter 5 Water Supply Reliability

Factors that can cause water supply shortages are those such as legal, environmental, water quality or climatic constraints, severe drought, earthquakes, catastrophic power outages, and sabotage. Reliability planning requires information about the expected frequency and severity of shortages and how available contingency measures can reduce the impact of shortages when they occur. Chapter 5 assesses the overall reliability of future supplies regardless of drought or emergency conditions.

5.1 Reliability of District Supply

10620(f): #5. An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize the resources and minimize the need to import water from other regions.

10631(c)(2): #23. For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

The detailed information, analyses, and conclusions set forth in this 2010 UWMP and the various supporting documentation (including the Water Authority's 2010 UWMP) demonstrate the District's ability to consistently provide an adequate and reliable water supply that is sufficient to meet current and projected water demands during normal, single-dry, and multiple-dry years over the next 20-year planning horizon. Notwithstanding, the District recognizes the various factors that could possibly affect the consistency of the District's water supplies. Those factors include legal, environmental, water quality, and climatic issues related to local supplies or wholesale supplies from the Water Authority, severe drought conditions, or other extraordinary and unforeseen circumstances. Despite these possibilities, the District understands, as noted by the courts, that "some level of uncertainty is a permanent, inherent feature of modern water management which arises from a wide range of scientific and legal regulatory factors that cannot be avoided" where "water management is subject to the vagaries of climate, competing demands ... environmental constraints, and overlapping regulatory regimes of both the federal and state levels." Accordingly, while the various factors that could possibly affect the District's supplies are recognized, those possibilities do not outweigh the information and analyses relied upon by the District to demonstrate the overall adequacy and reliability of its water supply capabilities. Thus, the need to describe plans to supplement or replace any of the District's supplies with alternative sources under Section 10631(c)(2) of the UWMP Act has not been triggered. **Table 5-1** provides a summary of factors that can possibly affect the District's water supplies.

Table 5-1: Factors Possibly Affecting Supply

Factors Resulting in Inconsistency of Supply (DWR Table 29)						
Water supply sources	Specific source name	Limitation quantification	Legal	Environmental	Water Quality	Climatic
San Diego County Water Authority	SWP/CRA	N/A	Litigation over Delta fisheries; Litigation over QSA and Transfer Agreement	Potential Delta levee failures, seismic emergencies; Regulation regarding Delta fisheries	High TDS levels in imported water supply	Extreme drought; Potential climatic change
Local Surface Water	Lake Hodges	N/A	--	--	Eutrophication in summer and storm runoff in winter	Supply variability due to weather
San Elijo Joint Powers Authority	SEWRF	N/A	Negotiation of recycled water contracts	Regulatory issues affecting recycled water use	High TDS levels in recycled water supply; Potential need for plant upgrades due to emerging regulations	--

As demonstrated herein, the District is not anticipating a shortfall in water supplies during normal, single-dry, or multiple-dry year periods over the next 20-year planning horizon. The Water Authority has diversified its supply portfolio, the District has diversified its local supplies, and the District has implemented comprehensive water conservation measures that have been embraced by District customers.

Lake Hodges provides local raw water storage capacity that is greater than the District's estimated annual local supply needs. This enables the District to assume that local supplies may still be available even during multiple dry year events. In the event that amount of local surface water within Lake Hodges is not sufficient to meet District needs, the District has the ability to purchase either imported raw or imported treated water from the Water Authority. The Water Authority reports that if MWD, Water Authority, and member agency supplies are developed as planned, along with achievement of the SBx7-7 water conservation targets, adequate water supply is anticipated within the Water Authority's service area (Water Authority 2010b). Due to the District's prior proactive efforts to implement recycled water and comprehensive conservation programs, it is apparent that the District will be able to achieve SBx7-7 compliance.

In addition, the District's recycled water contract with SEJPA provides a drought-proof supply of recycled water for non-potable irrigation demands. The District's water shortage contingency planning is described in detail in Chapter 6.

5.2 Reliability of Water Authority Supply

As described in Chapter 4, the Water Authority is working to diversify its supplies and decrease its dependence on imported water supplies from MWD over the next 20 years. The Water Authority's 2010 UWMP reports that MWD accounted for approximately 50% of the Water

Authority's supply in 2010 and this supply is anticipated to decrease to 23% by 2020. Diversifying the Water Authority's supply by reducing imported water and increasing new supply sources, such as seawater desalination, will serve to substantially increase the reliability of the Water Authority's future supplies.

The Water Authority is currently implementing the ESP, which would protect the San Diego region from service interruptions during emergency situations and ensure reliability of supplies. The ESP is a system of reservoirs, interconnected pipelines, and pumping stations designed to make water available to all communities in the San Diego region in the event of a disaster that would interrupt imported water deliveries. Details regarding the ESP and its impact on supply reliability are discussed in detail in Section 6.1. In addition, the Water Authority is committed to supporting its member agencies in complying with requirements of the Water Conservation Bill of 2009 and therefore reducing urban water consumption by 20% by the year 2020.

The Water Authority reports that if MWD, Water Authority, and member agency supplies are developed as planned, along with achievement of the SBx7-7 retail conservation target, no shortages are anticipated within the Water Authority's service area in a single-dry year through 2035 (Water Authority 2010b). In years where shortages may occur, after utilization of carryover storage, additional regional shortage management measures consistent with the Water Authority's *Water Shortage and Drought Response Plan* will be taken to fill the supply shortfalls. These measures could include securing dry-year transfers, which the Water Authority successfully acquired and utilized during the recent shortage period. In addition to dry-year supplies, extraordinary conservation, achieved through voluntary or mandatory water-use restrictions, could also assist in managing shortages (Water Authority 2010b). The reliability of the Water Authority's wholesale supplies is discussed in detail in the Water Authority's UWMP.

5.3 Water Quality Impacts on Reliability

10634: #52. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

About 30% of the District's potable supply comes from local surface runoff, which is treated at the Badger Plant. Further, the District receives most of its imported supply as raw (untreated) water, which is also treated at the Badger Plant. Water quality issues are different for each source of water delivered to the plant. Water quality is continuously monitored by the District and improvements are made to the Badger Plant as necessary to ensure that the water supply meets all drinking water standards. No water quality conditions are anticipated that will affect water reliability by the District over the next 20 years. For this reason, DWR's Table 30: Water Quality-Current and Projected Water Supply Impacts is not included within this UWMP.

A summary of the water quality issues associated with each supply source is provided below:

Surface Water: Local surface water has historically presented treatability issues with total organic carbon (TOC), coliform bacteria, iron, manganese, TDS, dissolved oxygen (DO) levels, *Cryptosporidium sp.* and *Giardia sp.*, as well as algae. The variability of water quality in Lake Hodges can be significant, with considerable change in levels of key parameters in a matter of days particularly during or after storm events. During winter months, water quality challenges include high turbidity and organics loading. In the spring and summer, algae blooms, iron, manganese, and sulfides create treatment challenges. All local surface water treated at and conveyed from the Badger Plant conforms with applicable drinking water standards.

Water quality in Lake Hodges may improve after the ESP is completed because there will be more mixing between the surface water in Lake Hodges and the imported water stored in Olivenhain Reservoir. Additionally, the Water Authority has applied for grant funding to evaluate existing technologies and determine a pilot project for long-term water quality improvement in Lake Hodges.

Imported Water: As mentioned previously, imported water supplied to the District by the Water Authority is conveyed by MWD from the CRA and the SWP. CRA supplies typically contain high salinity levels. Water imported via the CRA has a TDS averaging around 650 milligrams per liter during normal water years. To reduce these levels, MWD approved a highly successful Salinity Management Policy in April 1999 which blends CRA with lower-salinity SWP supplies. Perchlorate has also been detected and speculated to be linked to a chemical manufacturing site in Henderson, Nevada. The Nevada Department of Environmental Protection manages a comprehensive groundwater remediation program which has reduced perchlorate discharge to the river by over 90 percent since 2004.

SWP water typically contains high levels of bromide and TOC, most likely due to seawater intrusion and agricultural drainage from peat soil islands in the Bay-Delta, the confluence of the San Francisco Bay, Sacramento River, and San Joaquin River. Bromide and TOC combine with chemicals used in the water treatment process to form disinfection by-products that are strictly regulated under the federal Safe Drinking Water Act. SWP supplies also have significantly higher nutrient levels over CRA supplies, which can increase nuisance algal and aquatic weed growth. All imported water treated at and conveyed from the Badger Plant conforms with applicable drinking water standards.

Recycled Water: All recycled water currently utilized within the District's service area meets all Title 22 standards for tertiary-treated water. However, high TDS source water poses a special problem for water recycling facilities because conventional treatment processes are designed to remove suspended particles, but not dissolved particles. TDS removal, or demineralization, requires an advanced treatment process, which can increase project costs significantly.

5.4 Drought Planning

10631(c)(1): #22. Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: (A) an average water year, (B) a single dry water year, (C) multiple dry water years.

10632(a): #35. Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50% reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

10632(b): #36. An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

10632(i): #43. A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis

10635(a): #53. Include a management plan, an assessment of the reliability of the water service to the supplier's customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the supplier with the total projected water use over the next 20 year, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

Figure 2-2, located in Chapter 2, shows the range in annual precipitation between 1965 and 2009 for the San Diego area, which was obtained from the Water Authority. Based on 45 years of precipitation data, the average water year precipitation is 10.4 inches. In 2003, a normal or average water year, rainfall totaled 10.2 inches. A representative single dry year was 2007 during which it rained 3.9 inches, which is within the lowest 10% of data points from the 1965 to 2010 recorded period. The period of 1999 – 2002 represents a typical period of multiple dry years, during which recorded rainfall averaged 6.1 inches annually.

Based on this historical water data, the District utilizes 2003 as its normal or average water year, 2007 as the single dry year, and 1999 – 2002 as its multiple-dry years. **Table 5-2** summarizes the basis of the District's water year analysis and **Table 5-3** shows the District's historic water use during the aforementioned selected dry and wet year periods. Water use typically increases over multiple-year drought years as hot and dry weather spurs customers to irrigate more often to maintain high quality turf condition. However, evaluation of historic District data shows that water use in multiple dry years does not necessarily increase annually. Table 5-3 shows that the District's customers actually used less than 100% of average water year supplies during the 1999 – 2002 dry period. For planning purposes, the District used more conservative assumptions for its multiple dry year supply projections in order to address a more typical scenario where demand increases each year during a multiple dry year period. This is reflected in the hypothetical dry year demand comparison data presented in Table 5-4.

Table 5-2: Basis of Water Year Data

Basis of Water Year Data (DWT Table 27)	
Water Year Type	Base Year(s)
Average Water Year	2003
Single-Dry Water Year	2007
Multiple-Dry Water Years	1999-2002

Table 5-3: Supply Reliability – Historic Potable Conditions

Supply Reliability — Historic Conditions (DWR Table 28)					
Average/Normal Water Year (2003)	Single Dry Water Year (2007)	Multiple Dry Water Years (1999-2002)			
		Year 1	Year 2	Year 3	Year 4
13,434	14,665	12,860	14,335	12,789	12,901
Percent of Average/Normal Year:	109.2%	95.7%	106.7%	95.2%	96.0%
<i>Units are in acre-feet per year.</i>					

Table 5-4 provides an estimate of current (2010) water supply reliability from all three of the District's water sources. This table also estimates supply reliability for 2011 if it were a single dry year, and estimates supply reliability through a hypothetical multiple dry period from 2011 to 2013. The average or normal year supply of 11,912 AF in 2010 was reported previously in Table 4-1. The potential single dry year supply from Lake Hodges and SEJPA was estimated to remain at historical levels, while wholesale supply was estimated to increase in order to serve 109.2% demand levels, as demonstrated during the 2007 water year. The multiple dry year projection was estimated to increase consistently over the three years due to warm weather conditions and associated irrigation demand. The multiple dry year supply from SEJPA was estimated to remain constant, while Lake Hodges supply was estimated to decrease by 10% each year, and wholesale water was estimated to increase as needed to meet local demands.

Table 5-4: Hypothetical Supply Reliability – Current Water Sources

Hypothetical Supply Reliability — Current Water Sources (DWR Table 31)					
Water supply sources	Average / Normal Water Year Supply 2010	Single Dry Year Supply 2011	Multiple Dry Water Year Supply		
			Year 2011	Year 2012	Year 2013
San Diego County Water Authority	5,703	9,236	6,599	6,936	7,182
Local Surface Water	5,712	3,268	3,268	3,268	3,268
San Elijo Joint Powers Authority	497	500	500	500	500
Total	11,912	13,004	10,367	10,704	10,950
Percent of normal year:	100.0%	109.2%	103.4%	106.7%	109.2%
<i>Units are in acre-feet per year.</i>					

Projected Normal Year Supply and Demand

Table 5-5 compares current and projected water supply and demand. It indicates that in average precipitation years, the District has sufficient water to meet its customers' needs through 2035. This is based on continued commitment to conservation measures, availability of local supplies, and commitment by the Water Authority to meet member agency demands.

Table 5-5: Supply and Demand Comparison – Normal Year

Supply and Demand Comparison — Normal Year (DWR Table 32)					
	2015	2020	2025	2030	2035
Supply totals	11,206	11,338	11,656	11,921	12,126
Demand totals	11,206	11,338	11,656	11,921	12,126
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Units are in acre-feet per year.</i>					

Table 5-6 provides assurances that the demand and supply projections within this UWMP are in compliance with the SBx7-7 targets described in Chapter 3. As demonstrated in the table below, projected normal year demands excluding recycled water (line 4) are lower than the potential maximum demands using the SBx7-7 water use targets (line 6). Note that the allowable demands using the water use targets with recycled water (line 5) are higher than the projected normal year demands with recycled water (line 3) – this demonstrates that the District's projected water use falls well within the targets established SBx7-7.

Table 5-6: Consideration of Urban Water Use Targets

Supply and Demand Comparison — Consideration of Urban Water Use Targets					
	2015	2020	2025	2030	2035
1-Supply totals	11,206	11,338	11,656	11,656	11,656
2-Supply totals excluding recycled water	10,706	10,838	11,156	11,156	11,156
3-Demand totals	11,206	11,338	11,656	11,656	11,656
4-Demand totals excluding recycled water	10,706	10,838	11,156	11,156	11,156
5-Demand based on SBx7-7 targets	13,117	11,854	12,194	12,472	12,687
6-Demand based on SBx7-7 excluding recycled water	12,617	11,354	11,694	11,972	12,187
<i>Units are in acre-feet per year.</i>					

Projected Single Dry and Multiple Dry Year Supply and Demand

Table 5-7 presents a supply and demand comparison for a single dry year. The potential single dry year supply from Lake Hodges and SEJPA was estimated to remain at historic levels, while imported supply was estimated to increase as needed to meet customer demands. The potential single dry year demand for 2015 is capped at the interim 2015 target of 568 GPCD and the potential single dry year demand for 2020 – 2035 is capped at the 2020 water use target of 505 gpcd, plus recycled water (line 5 in Table 5-6).

Table 5-7: Supply and Demand Comparison – Single Dry Year

Supply and Demand Comparison — Single Dry Year (DWR Table 33)					
	2015	2020	2025	2030	2035 - opt
Supply totals	13,117	11,854	12,194	12,472	12,687
Demand totals	13,117	11,854	12,194	12,472	12,687
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Units are in acre-feet per year.</i>					

Table 5-8 presents a supply and demand comparison for multiple dry years. The multiple dry year supply from SEJPA and the Lake Hodges supply was estimated to remain constant, while imported water was estimated to change in accordance with the Water Authority's 2010 UWMP supply projections. The potential multiple dry year demand for 2015 is capped at the interim 2015 target of 568 gpcd and the potential multiple dry year demand for 2020 – 2035 is capped at the 2020 water use target of 505 gpcd plus recycled water (line 6 in Table 5-6).

In accordance with the Water Authority's 2010 UWMP, imported water supplies from the Water Authority are projected to increase as needed to meet customer demands, except in the third year of the multiple dry year periods following 2015, 2030, and 2035. The Water Authority's supply reliability analysis indicates that years 2017, 2032, and 2037 are anticipated to be reduced in

accordance with the Water Authority's preferential right allocation from MWD. The Water Authority shows that their MWD water supply will be reduced by approximately -14% in the third year of multiple dry periods (Water Authority 2010b).

The District's ability to meet its customer demands in dry years is based on the Water Authority's ability to provide a reliable imported water supply through its IID transfer and canal lining projects, as well as local water supply through the Carlsbad Seawater Desalination Project. The Water Authority has documented its plans to provide a reliable water supply to the region, even if MWD allocates supplies based on preferential right, in its *2010 UWMP*. The Water Authority projects that its carryover storage investment in San Vicente Reservoir will improve reliability in multiple dry year periods. However, near-term shortages may occur before IID transfer supplies have fully ramped up and long-term shortages may occur after 2030 when regional demands outgrow supplies. As such, Table 5-8 assumes that the proportion of the District's water supply that is comprised of imported water will be reduced by -14% in years 2017, 2032, and 2037.

In years where shortages may occur, extraordinary conservation achieved through voluntary and mandatory water-use restrictions would be necessary.

Table 5-8: Supply and Demand Comparison – Multiple Dry-Year Events

Supply and Demand Comparison — Multiple Dry-Year Events (DWR Table 34)						
		2015	2020	2025	2030	2035
Multiple-dry year first year supply	Supply total	13,117	11,854	12,194	12,472	12,687
	Demand totals	13,117	11,854	12,194	12,472	12,687
	Difference	0	0	0	0	0
	Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
	Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%
Multiple-dry year second year supply	Supply totals	13,117	11,854	12,194	12,472	12,687
	Demand totals	13,117	11,854	12,194	12,472	12,687
	Difference	0	0	0	0	0
	Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
	Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%
Multiple-dry year third year supply	Supply totals	11,213	11,854	12,194	10,847	10,969
	Demand totals	13,117	11,854	12,194	12,472	12,687
	Difference	(1,904)	0	0	(1,625)	(1,718)
	Difference as % of Supply	-17.0%	0.0%	0.0%	-15.0%	-15.7%
	Difference as % of Demand	-14.5%	0.0%	0.0%	-13.0%	-13.5%
Units are in <i>acre-feet per year</i> .						

Chapter 6 Water Shortage Contingency Planning

Chapter 6 contains a detailed discussion of the water shortage contingency planning undertaken by the District to prepare for, and implement during, a catastrophic interruption of water supplies. This chapter also addresses the District's mandatory prohibitions and penalties associated with excess water use.

10632(c): #37. Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, or other disaster.

10632(d): #38. Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

10632(e): #39. Consumption of reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

10632(f): #40. Penalties or charges for excessive use, where applicable.

10632(g): #41. An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments

10632(h): #42. A draft water shortage contingency resolution or ordinance.

The District has experienced two droughts – in the 1990s and again in the late 2000s – where supply deficiencies were significant enough to necessitate mandatory water use restrictions. In the 1990s, a statewide drought halted operations of the SWP and simultaneously, a local drought significantly reduced flows into Lake Hodges. At that time, the Water Authority informed its member agencies that a mandatory 20% reduction in demand was needed. In 2007 – 2011, another statewide drought, combined with litigation associated with operation of the SWP in the Bay-Delta, substantially reduced pumping volumes in the SWP. In April 2007, MWD notified its member agencies (the Water Authority) that it expected challenges in meeting demands due to insufficient imported water supplies from the SWP and the CRA. MWD, the Water Authority, and the District all adopted voluntary and then mandatory water use restrictions as dry conditions persisted into 2009.

In April 2009, MWD's Board of Directors voted to allocate urban water deliveries in FY 2010 for the first time in decades to its member agencies. In turn, the Water Authority allocated water deliveries to its member agencies. The Water Authority's long-term strategy to improve water supply reliability by diversifying the region's water supply portfolio helped offset some of the required cutbacks from MWD. Residences and businesses responded to the call for conservation and urban water use fell throughout San Diego County. Although hydrologic conditions began to improve in 2010, storage reserves remained low, and allocations continued into FY 2011, to help restore storage reserves and prepare for a potential dry water year.

The District's reaction to drought conditions was to adopt a drought management plan, implement mandatory and voluntary water use restrictions, and implement new water

conservation programs. The District's drought management plan is incorporated in the District's *Administrative Code, Article 17, Drought Response Policies and Procedures*; a copy of this article, including its most recent revisions in October 2009, is included in **Appendix H**.

6.1 Water Shortage Emergency Response

The District has taken significant steps in an effort to be prepared for catastrophic water supply interruption, including development of planning documents outlining contingency actions and purchase of key mechanical equipment to improve preparedness and enhance the District's ability to respond as needed. The *Emergency Response Plan* was revised in 2005. In 2008, the District adopted the National Incident Management System (NIMS) that establishes procedures and training programs for emergency response.

Emergency Response Plan

Emergencies often strike without warning – interrupting normal operations, disrupting normal channels of communication and imposing great responsibilities that must be carried out with minimal time and resources. Disaster planning is an intelligent response to the anticipated conditions and expected circumstances of emergencies. A comprehensive *Emergency Response Plan* was adopted in 1996 and updated in 2005 in conformance with Government Code Section 8550, which established the Standardized Emergency Management System.

The plan is integrated with the existing plans and systems within the Unified San Diego County Emergency Organization Operations Area, the Rancho Santa Fe Fire Protection District, the City of Solana Beach, and the San Diego County Water Authority. As described in Section 4, the District has established cooperative agreements with adjacent water agencies for the emergency exchange and transportation of water, including the City of San Diego, SDWD, City of Del Mar, and OMWD. All four agreements describe the number, location, type of connection, and agreed rate of flow. **Appendix I** provides a matrix of the interconnections subject these emergency exchange agreements.

If an event were to occur, the District would respond immediately to assess water supply and transmission capabilities. Depending upon the results of the initial assessment, the Plan may be activated at one of four levels:

Notification level is used for the purpose of alerting staff and Directors that emergency conditions may exist and that the Emergency Operations Center may need to be activated. The General Manager/Director of District Emergency Services may activate specific functions, such as Public Information Officer. The Unified San Diego County Emergency Services Organization Operational Area may also notify the District of emergency activations within the Operational Area or the State may place the District on alert.

Pre-activation is a heightened stage of alert and notification. All staff with emergency assignments should maintain contact with the District and be prepared to report to the Emergency Operations Center. In this level, some emergency functions may be activated; however the District is operating under normal conditions.

Emergency level is an official and partial or full activation of the District's Emergency Operations Center. During this phase, the District notifies the Water Authority and the County of San Diego of the activation and provides status reports.

Deactivation stage returns the operation to normal as the need for emergency response functions slows and ceases. Some functional positions have transitional responsibilities for recovery projects and programs.

Emergency Storage Project and Supply Reliability

In order to provide sufficient emergency water storage to supply to its member agencies during an extended period, the Water Authority has initiated construction of the Emergency Storage Project (ESP). The ESP is a system of reservoirs, pipelines, and other facilities designed to store and move water around the County of San Diego in the event of a natural disaster. The pipelines that carry imported water from MWD to San Diego crosses several major fault lines on their way to San Diego County. An earthquake, drought, or other disaster could interrupt San Diego County's imported water supply for up to six months. When completed, the ESP will provide 90,100 AF of stored water for emergency purposes to meet the county's needs through at least 2030. The Water Authority Board of Directors may also authorize that supplies from the ESP be used in a prolonged drought or other water shortage situation where imported and local supplies do not meet 75% of the Water Authority's member agencies urban demands.

In addition, to minimize the impact of future water supply shortages due to a disaster within the District, the District has system improvements such as emergency generators, and raw water storage at the SD Reservoir.

6.2 Water Shortage Contingency Plan

In 1991, the District adopted a Water Conservation Resolution (#92-06) for use in times of declared water shortage. The District's water shortage contingency plan is incorporated in the District's *Administrative Code, Article 17, Drought Response Policies and Procedures* (refer to Appendix H). The Code is designed to establish priorities and restrictions during various types of water shortages, including 10% to greater than 40% reduction in water supply. The Code specifies watering restrictions for outside irrigation (including golf course, park, school, agriculture and commercial uses), mobile equipment washing, pool refilling, over-irrigation, and hardscape maintenance.

As shown in **Table 6-1**, the District's water shortage contingency plan includes four drought stages: Levels 1 – 4. The District sets drought response levels in accordance with drought response levels determined by the Water Authority. Level 1 represents a reduction in the District's water supplies by 10 percent or less. At this stage, the District would take actions to encourage reduction of water use voluntarily. Level 2 represents up-to a 20% shortage due to drought or other supply reductions. At this stage, all of the voluntary water use reduction measures in Level 1 become mandatory. Level 3 represents an increased shortage up to 40% due to drought or other supply reductions. At this stage, additional mandatory prohibitions are established and the District will suspend consideration of annexations to its service area. Level 4 is implemented when the Water Authority declares a water shortage emergency (>40% shortage). At this stage, all landscape irrigation is stopped, except crops and landscape products of commercial growers and nurseries.

Table 6-1: Drought Condition Stages to Address Water Supply Shortages

Drought Condition Stages To Address Water Supply Shortages (DWR Table 35)		
Stage No.	Water Supply Conditions	% Shortage
Level 1	Reasonable probability of water supply shortage	10%
Level 2	Shortage due to cutbacks caused by drought or other reduction	20%
Level 3	Increasing cutbacks caused by drought or other reduction	40%
Level 4	Water Authority declares a water shortage emergency	>40%

Table 6-2 demonstrates the consumption reduction methods and mandatory prohibitions against specific water use practices during water shortages.

Enforcement and Penalties

Penalties for violators of the drought response stages include notification and warning, installation of a flow restriction device, and discontinuance of service depending on the water restriction stage and number of violations. **Table 6-3** identifies that penalties and charges are levied when customers violate the water use restrictions described under each Drought Condition Level restrictions. For a willful and excessive violation, a misdemeanor punishable by \$1,000 and 30 days in jail could be issued, as authorized in California Water Code Section 377.

Table 6-2: Mandatory Prohibitions and Consumption Reduction Methods

Water Shortage Contingency — Mandatory Prohibitions And Consumption Reduction Methods (DWR Tables 36 and 37)	
Prohibition/Consumption Reduction Method	Prohibition is Mandatory
Stop washing down paved surfaces, except when it is necessary to alleviate safety or sanitation hazards	Level 1 encouraged; Level 2 required
Stop water waste resulting from inefficient landscape irrigation	Level 1 encouraged; Level 2 required
Irrigate residential and commercial landscape before 8 am and after 6 pm only	Level 1 encouraged; Level 2 required
Use hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas that are not connected to an irrigation system	Level 1 encouraged; Level 2 required
Irrigate nursery and commercial grower's products before 10 am and after 6 pm only	Level 1 encouraged; Level 2 required
Use re-circulated water to operate ornamental fountains	Level 1 encouraged; Level 2 required
Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates water on-site	Level 1 encouraged; Level 2 required
Serve and refill water in restaurants and other food service establishments only upon request	Level 1 encouraged; Level 2 required
Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily	Level 1 encouraged; Level 2 required
Repair all water leaks within five (5) days of notification by SFID unless other arrangement are made with the General Manager	Level 1 encouraged; Level 2 required

Water Shortage Contingency — Mandatory Prohibitions And Consumption Reduction Methods (DWR Tables 36 and 37)	
Prohibition/Consumption Reduction Method	Prohibition is Mandatory
Use recycled or non-potable water for construction purposes when available	Level 1 encouraged; Level 2 required
During the months of June through October, limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager and posted by SFID	Level 2
Limit lawn watering and landscape irrigation, using sprinklers to no more than ten (10) minutes per watering station per assigned day	Level 2
Repair all leaks within seventy-two (72) hours of notification by SFID unless other arrangements are made with the General Manager	Level 2
Stop operating ornamental fountains or similar decorative water features unless recycled water is used	Level 2
No new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, and no statements or immediate ability to serve or provide potable water services shall be issued (see Policy for exceptions)	Level 2
Level 2	20% Reduction
During the months of June through October, limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by SFID	Level 3
Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life	Level 3
Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life	Level 3
Stop washing vehicles except at commercial carwashes that re-circulate water or by high pressure/low volume wash systems	Level 3
Repair all leaks within forty-eight (48) hours of notification by SFID unless other arrangements are made with the General Manager	Level 3
SFID will suspend consideration of annexations to its service area	Level 3
Levels 2-3	40% Reduction
Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries (see Policy for exceptions)	Level 4
Repair all leaks within twenty-four (24) hours of notification by SFID unless other arrangements are made with the General Manager	Level 4
Levels 2-4	>40% Reduction

Table 6-3: Penalties and Charges

Water Shortage Contingency — Penalties and Charges (DWR Table 38)	
Penalties or Charges	Stage When Penalty Takes Effect
Penalty for violation of water use restriction based on Drought Condition Level	Level 2

Chapter 7 Demand Management Measures and SBx7-7 Compliance

7.1 Summary of SBx7-7 Baseline and Target Demands

Chapter 3 of the 2010 UWMP discussed Senate Bill x7-7 (SBx7-7), the Water Conservation Bill of 2009. The overall goal of this legislation is to reduce per capita urban water use (as defined by gallons per capita per day) by 20% by the year 2020 (also referred to as 20X2020). In order to recognize the efforts of urban water retailers that historically embraced water recycling and water conservation approaches long before the adoption of this legislation, SBx7-7 provides a baseline water use calculation approach that averages demands over a 10 year period (15 years if the agency used over 10% recycled water in 2008).

The 10-year baseline calculation for the District utilized actual potable water demands from 2000 to 2009. Historic population data from SANDAG (described in Chapter 2) was then used to calculate the SBx7-7 baseline demand of 631 gallons per capita per day (gpcd). Per SBx7-7, a 5-year baseline was also identified to confirm that 631 gpcd was the appropriate baseline demand.

DWR established four technical methodologies that could be used to define SBx7-7 urban water use targets. The District selected *Method 1: 80% of Base Daily Per Capita Water Use* as its means to determine a 2020 potable water demand use target. The District's urban water use target for 2020 was calculated by reducing the established 631 gpcd baseline by 20% to realize a target of 505 gpcd. As discussed in detail in Chapter 2, population projections from SANDAG for 2020 were then used to establish the SBx7-7 2020 target potable water demand of 11,354 acre feet (AF). SBx7-7 also set an interim target of 10% reduction by 2015. The District's SBx7-7 interim 2015 target potable water demand is 12,617 AF.

7.2 Summary of Projected District Demands

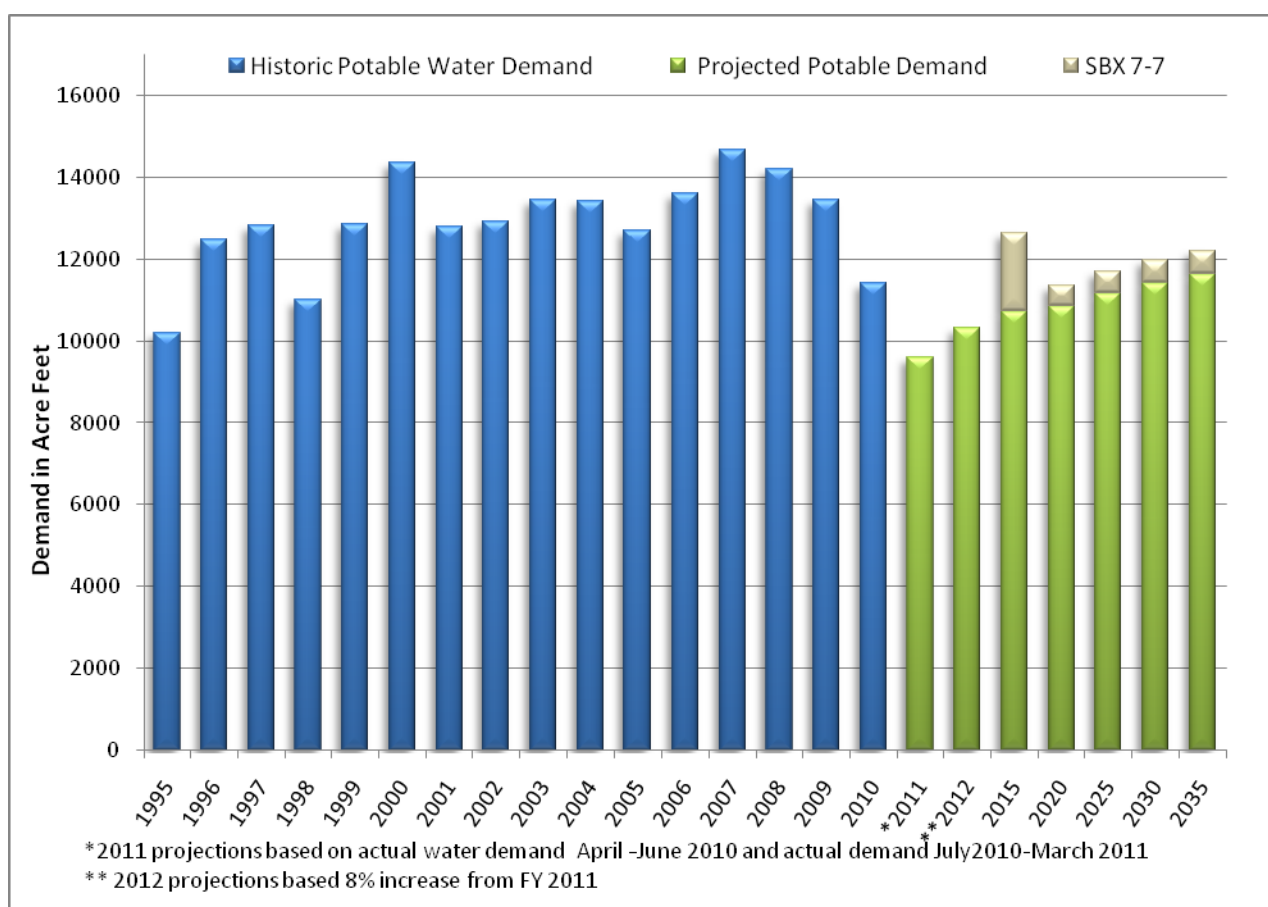
As described in detail in Section 3, over the past several years the District has implemented recycled water programs and comprehensive conservation programs, that have significantly reduced the use of potable water. The District offset approximately 500 AFY of potable water in its western service area through the use of recycled water. In 2007, the District went to an inclining block (tiered) rate structure, and completed an *Integrated Water Resources Plan* that emphasized water use reduction through comprehensive conservation measures. Over the years, the District implemented a variety of conservation measures described later in this chapter. In addition, the District instituted water use restrictions associated with established water waste prohibitions. All of these efforts, in combination with recent water rate increases due to increased cost in potable water supplies, have combined significantly to reduce potable water consumption throughout the District. Between 2009 and 2010, actual total demands dropped 15% from 13,979 to 11,912 (includes potable water, recycled water, and system losses). Actual demands for the first nine months of FY 2011, combined with the actual demands of the last three months of FY 2010, provide an estimated FY 2011 demand of 10,030 AFY. This is an additional 16% drop from FY 2010.

Future demands would be calculated by multiplying the population predicted by SANDAG (as discussed in detail in Chapter 2) by a gallons per capita per day factor that relates to the District's unique demand characteristics. In projecting the demand for 2015, it was assumed that the half of

the 16% demand reduction between 2010 and 2011, or 8%, would rebound between 2011 and 2015. SANDAG projected the population would increase by 2.4% between 2010 and 2015. Therefore, the calculation of the demand for 2015 includes an increase of the 2011 gallons per capita per day of 8% due to conservation rebound, multiplied by a population that is 2.4% higher than 2010. In subsequent years, the same gallons per capita per day value is used in 2015 was then applied to the population projections for 2020, 2025, 2030, and 2035. This approach assumes continued non-mandatory conservation will occur, but allows for some rebounding above the lowest demand year of 2011.

GPCD calculations were completed in accordance with Section D of the DWR Guidebook, which defines baseline daily per capita water use as “how much water is used within an urban water supplier’s distribution system area on a per capita basis” (DWR 2011a). This approach is described in more detail in Chapter 3. **Figure 7-1** provides an overview of the District’s historic and projected potable water use.

Figure 7-1: District’s Historic and Projected Potable Water Use



As shown in Figure 7-1, assuming an 8% rebound between 2011 demands and 2015 demands, the District would still be able to achieve SBx7-7 compliance if District customers continue to embrace conservation. Additional expansion to the District’s recycled water program would not be required to achieve compliance with SBx7-7 assuming conservation practices are maintained.

However, recycled water is still an important alternative to imported water and projects will continue to be pursued based upon cost effectiveness. Mandatory water use restrictions are currently in place that are anticipated to be relaxed in the near future. If necessary to comply with SBx7-7 or other drought conditions in the future, mandatory restrictions could once again be imposed. However, it is apparent that the District's customers have embraced enhanced conservation practices and that lower levels of water use are anticipated to continue in the future.

7.3 Demand Management Measures for SBx7-7 Compliance

10631(f)(4): #26. Describe and provide a schedule of implementation for each water DMM that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures....

10631(f)(3):#27. A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water DMMs implemented or described under the plan.

10631(f)(4): #28. An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

10631(g): #29. An evaluation of each water DMM listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following: Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors; Include a cost-benefit analysis, identifying total benefits and total costs; Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost; Include a description of the water supplier's legal authority to implement the measure and efforts to work with other agencies to ensure the implementation of the measure and to share the cost of implementation.

Over the years, the District has established a wide range of demand management practices and tools that reduce potable water usage. Sustaining current recycled water and conservation practices will result in compliance with SBx7-7. Therefore, the District intends to utilize the tools that best meet the specific needs of the District's service area. In addition to sustaining current recycled water practices, conservation activities will focus on public information and education, conservation pricing, and water waste prohibition to encourage water users to continue conservation practices. Other demand management measures (DMM) previously established by the District will be made available if necessary to achieve SBx7-7 compliance.

The California Urban Water Conservation Council (CUWCC) was formed to assist water retailers in implementing an effective conservation program through use of DMMs. The CUWCC was formed in 1991 through a Memorandum of Understanding (MOU) regarding urban water conservation in California. The DMMs were included in the MOU as means for reducing California's long-term urban water demands. The District adopted the MOU on August 26, 2001 as Resolution 91-25 and is in compliance with CUWCC reporting.

Table 7-1 lists the DMMs outlined by the CUWCC and identified in DWR's Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan.

Table 7-1: DMMs for Urban Water Management in California

DMM	Description
A	Water survey programs for single-family residential and multifamily residential customers
B	Residential plumbing retrofit
C	System water audits, lead detection, and repair
D	Metering with commodity rates for all new connections and retrofit of existing connections
E	Large landscape conservation programs and incentives
F	High-efficiency washing machine rebate program
G	Public information programs
H	School education programs
I	Conservation programs for commercial, industrial, and institutional accounts
J	Wholesale agency programs
K	Conservation pricing
L	Water conservation coordinator
M	Water waste prohibition
N	Residential ultra-low-flush toilet replacement program

The District has satisfied the requirements of the Urban Water Management Planning Act by attaching a copy of the 2009-2010 Annual Report and BMP Coverage Report (**Appendix J**). For informational purposes, this section provides an overview of the District's conservation program.

The District's *Administrative Code, Article 17, Drought Response Policies and Procedures* outlines conservation measures implemented by the District; a copy of this article, including its most recent revisions in October 2009, is included in **Appendix H**. Chapter 6 provides additional detail on the four levels of drought response and associated voluntary and mandatory water use restrictions.

The following summarizes specific conservation programs implemented by the District:

BMP No. 1 (Water Survey Programs): The District participated in the Water Authority's free residential surveys for customers with the option of a mini-audit, or a full audit of the resident's property.

BMP No. 2 (Residential Plumbing Retrofit): The District partnered and promoted SDG&E's Free Home Energy and Water Savings Kit which provided customers with three faucet aerators and a low-flow showerhead.

BMP No. 3 (System Water Audits): Leak detection is monitored during home surveys, customer service appointments, and during bi-monthly meter reading.

BMP No. 4 (Metering With Commodity Rates): The District applies metering and inclining block rates based on water consumption.

BMP No. 5 (Large Landscape Conservation Programs): District customers who exhibit unusually high water usage relative to the size of the property are sent a letter and program brochure inviting them to participate in the District's water survey program.

BMP No. 6 (High-Efficiency Washing Machine Program): Vouchers are given for \$85 for purchase of a high-efficiency washing machine.

BMP No. 7 (Public Information Programs): The District has an ongoing program of public information through special mailings, e-newsletters, a conservation webpage, bill messages, and hold phone messages. All new customers are sent a packet of brochures containing information on the District, water quality, and water conservation. The District also provides speakers to community groups upon request, and provides an information booth at various events.

BMP No. 8 (School Education Programs): The District participates in the Water Authority's education programs which includes teacher education, school supplies, a traveling library, mobile lab, science fair awards and mini-grants for member agencies. The District also provides funding for a Splash Mobile and Poster Contest. The Splash Mobile is a water education program geared toward grades 4 to 6. The Poster Contest is sponsored by the District and other North County water agencies in conjunction with Water Awareness Month.

BMP No. 9 (Conservation Programs for Institutional, Commercial, and Industrial Accounts): Water management surveys are offered to all District customers, including institutional, commercial, and industrial accounts.

BMP No. 10 (Wholesale Agency Programs): The Metropolitan Water District changed their rate structure in 2003 according to a two-tiered system. The Water Authority, as a member agency, can purchase imported water up to an amount equal to a base allocation, which is Tier I. Any additional purchases will fall into Tier II, which has a significantly higher cost. For the Water Authority, the difference between the cost of Tier II imported water and the cost of implementing conservation measures is the value of conservation to the region. The Water Authority supports its member retail agencies in an effort to support local implementation.

BMP No. 11 (Conservation Pricing): The District has an inclining block rate structure, in accordance with this BMP. Water bills show gallons of water used per day for the last billing period compared to the same period the previous year. If desired, customers can also contact the District and be provided with historical water usage. Customers can compare their water usage with the same period of the prior year, and monitor their water usage over time.

BMP No. 12 (Water Conservation Coordinator): The District has a Conservation Coordinator position to address utility conservation efforts and to represent the District on issues regarding water conservation and recycled water use.

BMP No. 13 (Water Waste Prohibition): In 2009, the District's Administrative Code was revised to include drought response policies and procedures; a copy is provided in **Appendix H**. Water waste restrictions are included within this section. The City of Solana Beach and the County of San Diego in 2010 adopted a water efficient landscape ordinance in accordance with AB 1881.

BMP No. 14 (Residential Ultra-Low-Flush Toilet Replacement Program): The District offers incentives that reduce customers' costs for the replacement of old toilets with water-efficient models.

7.4 Water Use Reduction Plan

10608.26: #2. ...Urban retail water suppliers are to prepare a plan for implementing the Water Conservation Bill of 2009 requirements and conduct a public meeting which includes consideration of economic impacts.

The District's *Water Use Reduction Plan* was created in accordance with California Water Code section 10608.26 and other applicable requirements and consists of a plan for implementing requirements of the Water Conservation Bill of 2009. The urban water use targets and associated demands, which form the basis of this *Water Use Reduction Plan*, are described in detail in Section 3.3. As described within Section 3.3, the District's interim 2015 target is 568 GPCD and the 2020 water use target is 505 GPCD.

This *Water Use Reduction Plan* consists of full-scale implementation of three of the DMMs outlined above: Public Information and Education Programs, Conservation Pricing, and Water Waste Prohibition. Implementation of these DMMs will allow the District to achieve the use reductions necessary to meet its per capita water use targets consistent with SBx7-7.

Public Information Programs

The District will continue its ongoing public information programs that are focused on reaching customers through special mailings, a conservation website page, e-newsletters, bill messages, customer online account access and hold phone messages. The District will refine these programs as needed to educate customers about their current water use as it compares to water use targets established by the Water Conservation Bill of 2009.

The District will continue programs and information available on its website, including the Water Conservation Information section that has a link to a watering calculator that helps customers determine how much water is needed for landscape purposes (<http://www.sfidwater.org/conservation.htm>).

In addition, the District will continue to provide speakers to community groups and provide an information booth at various public events. These community outreach efforts will, as with special mailings, contain additional information to educate and inform customers on the requirements and importance of water conservation.

Conservation Pricing

The District has an inclining block rate structure for residential water use (which comprises 83% of total water demands in the District's service area). Water bills show gallons of water used per day for the last billing period compared to the same period the previous year. This inclining block rate structure encourages local residents to employ water conservation measures.

Water Waste Prohibition

In 2009, the District's Administrative Code was revised to include drought response policies and procedures; a copy is provided in **Appendix H**. Chapter 6 provides a detailed discussion of the District's water waste prohibitions.

Potable Water Demand Offset

Continued utilization of recycled water to offset potable water demand is one of the key goals of the District's *Integrated Water Resources Plan* and *Recycled Water Master Plan*. Though expansion of the District's current recycled water program does not appear to be required to achieve compliance with SBx7-7, the District intends to implement future recycled water programs and projects that are determined to be cost effective.

7.5 Economic Impact of SBx7-7 Compliance

Over the past several years, the District has invested in recycled water and conservation programs that have resulted in substantial reductions in potable water usage. The economic impacts of SBx7-7 compliance include the cost of public information and education to sustain current levels of conservation, the cost to sustain the current recycled water program, and the large decrease in revenue due to the reduction in potable water sales.

The annual cost for public information and education is approximately \$40,000. The annual cost to maintain the current recycled water program is approximately \$78,000. This cost includes cross connection protection services, meter services, and other related recycled water program costs.

By far the largest economic impact of SBx7-7 compliance is the loss of revenue associated with 20% reduction in potable water usage. Using FY 2011 water purchase and sales figures, for each acre foot of potable water that the District doesn't sell (is conserved by customers), there is a net loss of approximately \$525 per acre foot in revenue. This takes into account the fact that the District would not have to purchase the water that would be sold at a retail price. Between 2009 and 2010, potable water sales dropped by 15%, or approximately 2,020 AF, for a lost revenue of \$1,060,500. Between 2010 and 2011, potable water sales dropped an additional 16%, or approximately 1,800 AF, for an additional lost revenue of \$945,000. If potable water usage in 2012 rebounds by 8% (10,350 AF), there would still be a loss in revenue of \$1,636,950 compared to 2009 sales (13,428 AF). If conservation continues as anticipated, the District will continue to have substantially reduced revenues through 2020 and beyond.

The District has a comprehensive budget development process and rate modeling capabilities that enable the District to effectively balance revenue and expenditure requirements. The District maintains rate stabilization funds and reserves to accommodate short term revenue shortfalls. Projected long term revenue reductions require assessment of multiple operational variables in order to define the appropriate approach to reduce expenses and/or revenues by increasing rates.

References

- American Pacific Environmental Consultants. 2006. *Fairbanks Ranch Country Club Specific Plan*. Prepared by American Pacific Environmental Consultants, Inc. for WATT Industries of San Diego. December 2006. Available:
<http://www.sandiego.gov/planning/community/profiles/fairbanksranchcountryclub/pdf/fairbanksweb.pdf>
- California Department of Water Resources. 2009. *California Water Plan Update 2009*. Available:
<http://www.waterplan.water.ca.gov/cwpu2009/index.cfm>
- California Department of Water Resources. 2011a. *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan*. Available:
http://www.water.ca.gov/urbanwatermanagement/docs/2010FinalUWMPGuidebook_linked.pdf
- California Department of Water Resources. 2011b. *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use*. Available:
<http://www.water.ca.gov/wateruseefficiency/sb7/docs/methodologies-urban-per-capita-water-use-10042010.pdf>
- County of San Diego. 2008. *Median Household Income (Figure H-3) of the San Diego County General Plan Housing Element*. Available:
http://www.sdcountry.ca.gov/dplu/gpupdate/docs/bos_oct2010/B1_05_housing.pdf
- SourcePoint. 2006. *City of Solana Beach Housing Element: 2005-2010*. Prepared for the City of Solana Beach by SourcePoint. November 2006. Available: http://www.ci.solana-beach.ca.us/uploads/CD_HOUSINGELEMENT.pdf
- San Diego Regional Water Management Group and Regional Advisory Committee. 2007. *2007 San Diego Integrated Regional Water Management Plan*. Available:
<http://www.rmewater.com/clients/sdirwmp/plan.html#Status>
- San Diego County Water Authority. 2010a. Annual Rainfall – Lindbergh Field. Available:
<http://www.sdcwa.org/annual-rainfall-lindbergh-field>.
- San Diego County Water Authority. 2010b. Member Agency Technical Review Draft of the 2010 Urban Water Management Plan. March 30, 2011.
- Santa Fe Irrigation District. 2005. *Santa Fe Irrigation District Recycled Water Master Plan*. Available:
<http://www.sfidwater.org/docs/Website%20Version%20Recycled%20Water%20Master%20Plan.pdf>
- Santa Fe Irrigation District. 2007. *Santa Fe Irrigation District Integrated Water Resources Plan*. Available: <http://www.sfidwater.org/docs/IWRP%20FINAL%20APPROVED%207-2007.pdf>
- Santa Fe Irrigation District. 2009. *Asset Management Master Plan for the Santa Fe Irrigation District*. Available: <http://www.sfidwater.org/docs/Website%20Version%20Final%20AMMP.pdf>

Appendix A

Urban Water Management Planning Act and SBx7-7

Established: AB 797, Klehs, 1983

Amended: AB 2661, Klehs, 1990

AB 11X, Filante, 1991

AB 1869, Speier, 1991

AB 892, Frazee, 1993

SB 1017, McCorquodale, 1994

AB 2853, Cortese, 1994

AB 1845, Cortese, 1995

SB 1011, Polanco, 1995

AB 2552, Bates, 2000

SB 553, Kelley, 2000

SB 610, Costa, 2001

AB 901, Daucher, 2001

SB 672, Machado, 2001

SB 1348, Brulte, 2002

SB 1384, Costa, 2002

SB 1518, Torlakson, 2002

AB 105, Wiggins, 2004

SB 318, Alpert, 2004

CALIFORNIA WATER CODE DIVISION 6 PART 2.6. URBAN WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATION AND POLICY

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in

its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
 - (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
 - (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
 - (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
 - (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.
- (b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

- (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
- (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
- (c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

CHAPTER 2. DEFINITIONS

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

CHAPTER 3. URBAN WATER MANAGEMENT PLANS

Article 1. General Provisions

10620.

- (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

- (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.
 - (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
 - (d)
 - (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.
 - (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
 - (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
 - (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.
- 10621.
- (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.
 - (b) Every urban water supplier required to prepare a plan pursuant to this part shall notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
 - (c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

Article 2. Contents of Plans

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

- (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.
- (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:
 - (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
 - (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

- (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

- (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:
 - (1) An average water year.
 - (2) A single dry water year.
 - (3) Multiple dry water years.

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

- (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (e)
 - (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:
 - (A) Single-family residential.
 - (B) Multifamily.
 - (C) Commercial.
 - (D) Industrial.
 - (E) Institutional and governmental.
 - (F) Landscape.
 - (G) Sales to other agencies.
 - (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
 - (I) Agricultural.
 - (2) The water use projections shall be in the same five-year increments described in subdivision (a).

- (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
 - (1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:
 - (A) Water survey programs for single-family residential and multifamily residential customers.
 - (B) Residential plumbing retrofit.
 - (C) System water audits, leak detection, and repair.
 - (D) Metering with commodity rates for all new connections and retrofit of existing connections.
 - (E) Large landscape conservation programs and incentives.
 - (F) High-efficiency washing machine rebate programs.
 - (G) Public information programs.
 - (H) School education programs.
 - (I) Conservation programs for commercial, industrial, and institutional accounts.
 - (J) Wholesale agency programs.
 - (K) Conservation pricing.
 - (L) Water conservation coordinator.
 - (M) Water waste prohibition.
 - (N) Residential ultra-low-flush toilet replacement programs.
 - (2) A schedule of implementation for all water demand management measures proposed or described in the plan.
 - (3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

- (4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.
- (g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:
 - (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
 - (2) Include a cost-benefit analysis, identifying total benefits and total costs.
 - (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
 - (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.
- (h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.
- (i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
- (j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council

in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

- (k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c), including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities.

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

- (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.
- (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.
- (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including,

but not limited to, a regional power outage, an earthquake, or other disaster.

- (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.
- (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.
- (f) Penalties or charges for excessive use, where applicable.
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.
- (h) A draft water shortage contingency resolution or ordinance.
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

- (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
- (e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
- (f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
- (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Article 2.5 Water Service Reliability

10635.

- (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.
- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.
- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Articl 3. Adoption and Implementation of Plans

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644.

- (a) An urban water supplier shall file with the department and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the

plans shall be filed with the department and any city or county within which the supplier provides water supplies within 30 days after adoption.

- (b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has filed its plan with the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

CHAPTER 4. MISCELLANEOUS PROVISIONS

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.
- (b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

10657.

- (a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.
- (b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.

Senate Bill No. 7

CHAPTER 4

An act to amend and repeal Section 10631.5 of, to add Part 2.55 (commencing with Section 10608) to Division 6 of, and to repeal and add Part 2.8 (commencing with Section 10800) of Division 6 of, the Water Code, relating to water.

[Approved by Governor November 10, 2009. Filed with
Secretary of State November 10, 2009.]

LEGISLATIVE COUNSEL'S DIGEST

SB 7, Steinberg. Water conservation.

(1) Existing law requires the Department of Water Resources to convene an independent technical panel to provide information to the department and the Legislature on new demand management measures, technologies, and approaches. "Demand management measures" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

This bill would require the state to achieve a 20% reduction in urban per capita water use in California by December 31, 2020. The state would be required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. The bill would require each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill would require agricultural water suppliers to implement efficient water management practices. The bill would require the department, in consultation with other state agencies, to develop a single standardized water use reporting form. The bill, with certain exceptions, would provide that urban retail water suppliers, on and after July 1, 2016, and agricultural water suppliers, on and after July 1, 2013, are not eligible for state water grants or loans unless they comply with the water conservation requirements established by the bill. The bill would repeal, on July 1, 2016, an existing requirement that conditions eligibility for certain water management grants or loans to an urban water supplier on the implementation of certain water demand management measures.

(2) Existing law, until January 1, 1993, and thereafter only as specified, requires certain agricultural water suppliers to prepare and adopt water management plans.

This bill would revise existing law relating to agricultural water management planning to require agricultural water suppliers to prepare and adopt agricultural water management plans with specified components on or before December 31, 2012, and update those plans on or before December

31, 2015, and on or before December 31 every 5 years thereafter. An agricultural water supplier that becomes an agricultural water supplier after December 31, 2012, would be required to prepare and adopt an agricultural water management plan within one year after becoming an agricultural water supplier. The agricultural water supplier would be required to notify each city or county within which the supplier provides water supplies with regard to the preparation or review of the plan. The bill would require the agricultural water supplier to submit copies of the plan to the department and other specified entities. The bill would provide that an agricultural water supplier is not eligible for state water grants or loans unless the supplier complies with the water management planning requirements established by the bill.

(3) The bill would take effect only if SB 1 and SB 6 of the 2009–10 7th Extraordinary Session of the Legislature are enacted and become effective.

The people of the State of California do enact as follows:

SECTION 1. Part 2.55 (commencing with Section 10608) is added to Division 6 of the Water Code, to read:

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION

CHAPTER 1. GENERAL DECLARATIONS AND POLICY

10608. The Legislature finds and declares all of the following:

(a) Water is a public resource that the California Constitution protects against waste and unreasonable use.

(b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.

(c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

(d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.

(e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.

(f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

(g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.

(h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

(i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(k) Advance regional water resources management.

10608.8. (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an

Ch. 4

— 4 —

administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

CHAPTER 2. DEFINITIONS

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of

a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "Commercial water user" means a water user that provides or distributes a product or service.

(e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(k) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(l) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and

Ch. 4

— 6 —

water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.

(m) “Recycled water” means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:

(1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:

(A) Metered.

(B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.

(C) Treated to a minimum tertiary level.

(D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.

(2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.

(n) “Regional water resources management” means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(o) “Reporting period” means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(p) “Urban retail water supplier” means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(q) “Urban water use target” means the urban retail water supplier’s targeted future daily per capita water use.

(r) “Urban wholesale water supplier,” means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

CHAPTER 3. URBAN RETAIL WATER SUPPLIERS

10608.16. (a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

(b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20. (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

Ch. 4

— 8 —

- (B) Consider population density differences within the state.
- (C) Provide flexibility to communities and regions in meeting the targets.
- (D) Consider different levels of per capita water use according to plant water needs in different regions.
- (E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.
- (F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.
- (c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).
- (d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.
- (e) An urban retail water supplier shall include in its urban water management plan required pursuant to Part 2.6 (commencing with Section 10610) due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.
- (f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
- (g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).
- (h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:
 - (A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.
 - (B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.
- (2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies

available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) An urban retail water supplier shall be granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

10608.22. Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

10608.24. (a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

(e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area, may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

(f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26. (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

(b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.

(c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the United States Department of Defense military installation's requirements under federal Executive Order 13423.

(d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

(2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28. (a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

- (1) Through an urban wholesale water supplier.
- (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).
- (3) Through a regional water management group as defined in Section 10537.
- (4) By an integrated regional water management funding area.
- (5) By hydrologic region.
- (6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42. The department shall review the 2015 urban water management plans and report to the Legislature by December 31, 2016, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets in order to achieve

the 20-percent reduction and to reflect updated efficiency information and technology changes.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

- (a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.
- (b) Evaluation of water demands for manufacturing processes, goods, and cooling.
- (c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.
- (d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.
- (e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use on facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

CHAPTER 4. AGRICULTURAL WATER SUPPLIERS

10608.48. (a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement all of the following critical efficient management practices:

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

(6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier's pumps.

(d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.

(e) The data shall be reported using a standardized form developed pursuant to Section 10608.52.

(f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

(g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.

(h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.

(i) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

CHAPTER 5. SUSTAINABLE WATER MANAGEMENT

10608.50. (a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:

(1) Revisions to the requirements for urban and agricultural water management plans.

(2) Revisions to the requirements for integrated regional water management plans.

(3) Revisions to the eligibility for state water management grants and loans.

(4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.

(5) Increased funding for research, feasibility studies, and project construction.

(6) Expanding technical and educational support for local land use and water management agencies.

(b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

CHAPTER 6. STANDARDIZED DATA COLLECTION

10608.52. (a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

CHAPTER 7. FUNDING PROVISIONS

10608.56. (a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

10608.60. (a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the

Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

(b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

CHAPTER 8. QUANTIFYING AGRICULTURAL WATER USE EFFICIENCY

10608.64. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.

SEC. 2. Section 10631.5 of the Water Code is amended to read:

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, “not locally cost effective” means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

(B) The department may require additional information for any determination pursuant to this section.

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

(c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).

(d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.

(e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

(f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

SEC. 3. Part 2.8 (commencing with Section 10800) of Division 6 of the Water Code is repealed.

SEC. 4. Part 2.8 (commencing with Section 10800) is added to Division 6 of the Water Code, to read:

PART 2.8. AGRICULTURAL WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATIONS AND POLICY

10800. This part shall be known and may be cited as the Agricultural Water Management Planning Act.

10801. The Legislature finds and declares all of the following:

- (a) The waters of the state are a limited and renewable resource.
- (b) The California Constitution requires that water in the state be used in a reasonable and beneficial manner.
- (c) Urban water districts are required to adopt water management plans.

(d) The conservation of agricultural water supplies is of great statewide concern.

(e) There is a great amount of reuse of delivered water, both inside and outside the water service areas.

(f) Significant noncrop beneficial uses are associated with agricultural water use, including streamflows and wildlife habitat.

(g) Significant opportunities exist in some areas, through improved irrigation water management, to conserve water or to reduce the quantity of highly saline or toxic drainage water.

(h) Changes in water management practices should be carefully planned and implemented to minimize adverse effects on other beneficial uses currently being served.

(i) Agricultural water suppliers that receive water from the federal Central Valley Project are required by federal law to prepare and implement water conservation plans.

(j) Agricultural water users applying for a permit to appropriate water from the board are required to prepare and implement water conservation plans.

10802. The Legislature finds and declares that all of the following are the policies of the state:

(a) The conservation of water shall be pursued actively to protect both the people of the state and the state's water resources.

(b) The conservation of agricultural water supplies shall be an important criterion in public decisions with regard to water.

(c) Agricultural water suppliers shall be required to prepare water management plans to achieve conservation of water.

CHAPTER 2. DEFINITIONS

10810. Unless the context otherwise requires, the definitions set forth in this chapter govern the construction of this part.

10811. "Agricultural water management plan" or "plan" means an agricultural water management plan prepared pursuant to this part.

10812. "Agricultural water supplier" has the same meaning as defined in Section 10608.12.

10813. "Customer" means a purchaser of water from a water supplier who uses water for agricultural purposes.

10814. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of that entity.

10815. "Public agency" means any city, county, city and county, special district, or other public entity.

10816. "Urban water supplier" has the same meaning as set forth in Section 10617.

10817. “Water conservation” means the efficient management of water resources for beneficial uses, preventing waste, or accomplishing additional benefits with the same amount of water.

CHAPTER 3. AGRICULTURAL WATER MANAGEMENT PLANS

Article 1. General Provisions

10820. (a) An agricultural water supplier shall prepare and adopt an agricultural water management plan in the manner set forth in this chapter on or before December 31, 2012, and shall update that plan on December 31, 2015, and on or before December 31 every five years thereafter.

(b) Every supplier that becomes an agricultural water supplier after December 31, 2012, shall prepare and adopt an agricultural water management plan within one year after the date it has become an agricultural water supplier.

(c) A water supplier that indirectly provides water to customers for agricultural purposes shall not prepare a plan pursuant to this part without the consent of each agricultural water supplier that directly provides that water to its customers.

10821. (a) An agricultural water supplier required to prepare a plan pursuant to this part shall notify each city or county within which the supplier provides water supplies that the agricultural water supplier will be preparing the plan or reviewing the plan and considering amendments or changes to the plan. The agricultural water supplier may consult with, and obtain comments from, each city or county that receives notice pursuant to this subdivision.

(b) The amendments to, or changes in, the plan shall be adopted and submitted in the manner set forth in Article 3 (commencing with Section 10840).

Article 2. Contents of Plans

10825. (a) It is the intent of the Legislature in enacting this part to allow levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

(b) This part does not require the implementation of water conservation programs or practices that are not locally cost effective.

10826. An agricultural water management plan shall be adopted in accordance with this chapter. The plan shall do all of the following:

(a) Describe the agricultural water supplier and the service area, including all of the following:

- (1) Size of the service area.
- (2) Location of the service area and its water management facilities.
- (3) Terrain and soils.
- (4) Climate.

- (5) Operating rules and regulations.
- (6) Water delivery measurements or calculations.
- (7) Water rate schedules and billing.
- (8) Water shortage allocation policies.
- (b) Describe the quantity and quality of water resources of the agricultural water supplier, including all of the following:
 - (1) Surface water supply.
 - (2) Groundwater supply.
 - (3) Other water supplies.
 - (4) Source water quality monitoring practices.
 - (5) Water uses within the agricultural water supplier's service area, including all of the following:
 - (A) Agricultural.
 - (B) Environmental.
 - (C) Recreational.
 - (D) Municipal and industrial.
 - (E) Groundwater recharge.
 - (F) Transfers and exchanges.
 - (G) Other water uses.
 - (6) Drainage from the water supplier's service area.
 - (7) Water accounting, including all of the following:
 - (A) Quantifying the water supplier's water supplies.
 - (B) Tabulating water uses.
 - (C) Overall water budget.
 - (8) Water supply reliability.
- (c) Include an analysis, based on available information, of the effect of climate change on future water supplies.
- (d) Describe previous water management activities.
- (e) Include in the plan the water use efficiency information required pursuant to Section 10608.48.

10827. Agricultural water suppliers that are members of the Agricultural Water Management Council, and that submit water management plans to that council in accordance with the "Memorandum of Understanding Regarding Efficient Water Management Practices By Agricultural Water Suppliers In California," dated January 1, 1999, may submit the water management plans identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of Section 10826.

10828. (a) Agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, may submit those water conservation plans to satisfy the requirements of Section 10826, if both of the following apply:

- (1) The agricultural water supplier has adopted and submitted the water conservation plan to the United States Bureau of Reclamation within the previous four years.

(2) The United States Bureau of Reclamation has accepted the water conservation plan as adequate.

(b) This part does not require agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, to prepare and adopt water conservation plans according to a schedule that is different from that required by the United States Bureau of Reclamation.

10829. An agricultural water supplier may satisfy the requirements of this part by adopting an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) or by participation in areawide, regional, watershed, or basinwide water management planning if those plans meet or exceed the requirements of this part.

Article 3. Adoption and Implementation of Plans

10840. Every agricultural water supplier shall prepare its plan pursuant to Article 2 (commencing with Section 10825).

10841. Prior to adopting a plan, the agricultural water supplier shall make the proposed plan available for public inspection, and shall hold a public hearing on the plan. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned agricultural water supplier pursuant to Section 6066 of the Government Code. A privately owned agricultural water supplier shall provide an equivalent notice within its service area and shall provide a reasonably equivalent opportunity that would otherwise be afforded through a public hearing process for interested parties to provide input on the plan. After the hearing, the plan shall be adopted as prepared or as modified during or after the hearing.

10842. An agricultural water supplier shall implement the plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan, as determined by the governing body of the agricultural water supplier.

10843. (a) An agricultural water supplier shall submit to the entities identified in subdivision (b) a copy of its plan no later than 30 days after the adoption of the plan. Copies of amendments or changes to the plans shall be submitted to the entities identified in subdivision (b) within 30 days after the adoption of the amendments or changes.

(b) An agricultural water supplier shall submit a copy of its plan and amendments or changes to the plan to each of the following entities:

- (1) The department.
- (2) Any city, county, or city and county within which the agricultural water supplier provides water supplies.
- (3) Any groundwater management entity within which jurisdiction the agricultural water supplier extracts or provides water supplies.
- (4) Any urban water supplier within which jurisdiction the agricultural water supplier provides water supplies.

(5) Any city or county library within which jurisdiction the agricultural water supplier provides water supplies.

(6) The California State Library.

(7) Any local agency formation commission serving a county within which the agricultural water supplier provides water supplies.

10844. (a) Not later than 30 days after the date of adopting its plan, the agricultural water supplier shall make the plan available for public review on the agricultural water supplier's Internet Web site.

(b) An agricultural water supplier that does not have an Internet Web site shall submit to the department, not later than 30 days after the date of adopting its plan, a copy of the adopted plan in an electronic format. The department shall make the plan available for public review on the department's Internet Web site.

10845. (a) The department shall prepare and submit to the Legislature, on or before December 31, 2013, and thereafter in the years ending in six and years ending in one, a report summarizing the status of the plans adopted pursuant to this part.

(b) The report prepared by the department shall identify the outstanding elements of any plan adopted pursuant to this part. The report shall include an evaluation of the effectiveness of this part in promoting efficient agricultural water management practices and recommendations relating to proposed changes to this part, as appropriate.

(c) The department shall provide a copy of the report to each agricultural water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearing designed to consider the effectiveness of plans submitted pursuant to this part.

(d) This section does not authorize the department, in preparing the report, to approve, disapprove, or critique individual plans submitted pursuant to this part.

CHAPTER 4. MISCELLANEOUS PROVISIONS

10850. (a) Any action or proceeding to attack, review, set aside, void, or annul the acts or decisions of an agricultural water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(1) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

(2) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 120 days after submitting the plan or amendments to the plan to entities in accordance with Section 10844 or the taking of that action.

(b) In an action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an agricultural water supplier, on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse

of discretion is established if the agricultural water supplier has not proceeded in a manner required by law, or if the action by the agricultural water supplier is not supported by substantial evidence.

10851. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part. This part does not exempt projects for implementation of the plan or for expanded or additional water supplies from the California Environmental Quality Act.

10852. An agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

10853. No agricultural water supplier that provides water to less than 25,000 irrigated acres, excluding recycled water, shall be required to implement the requirements of this part or Part 2.55 (commencing with Section 10608) unless sufficient funding has specifically been provided to that water supplier for these purposes.

SEC. 5. This act shall take effect only if Senate Bill 1 and Senate Bill 6 of the 2009–10 Seventh Extraordinary Session of the Legislature are enacted and become effective.

Appendix B

Department of Water Resources 2010 UWMP Checklist

Appendix B: Department of Water Resources 2010 UWMP Checklist

Santa Fe Irrigation District, 2010 UWMP Data Tables

Table 1 Coordination with appropriate agencies							
Coordinating Agencies ^{1,2}	Participated in developing the plan	Commented on the draft	Attended public meetings	Was Contacted for Assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt	Not involved / No information
City of Solana Beach				✓	✓	✓	
County of San Diego				✓	✓	✓	
San Diego County Water Authority	✓			✓	✓	✓	
Rancho Santa Fe Association	✓			✓	✓	✓	
Rancho Santa Fe CSD				✓	✓	✓	
Fairbanks Ranch Association				✓	✓	✓	
Fairbanks Ranch CSD				✓	✓	✓	
San Elijo Joint Powers Authority				✓	✓	✓	
San Dieguito Water District				✓	✓	✓	
Olivenhain Municipal Water District				✓	✓	✓	

¹ Indicate the specific name of the agency with which coordination or outreach occurred.
² Check at least one box in each row.

Table 2 Population — current and projected							
	2010	2015	2020	2025	2030	2035 - optional	Data source ²
Service area population ¹	19,386	19,839	20,084	20,673	21,165	21,544	SANDAG 2050 Cities/County Forecast
Average Annual Percent Change		0.5%	0.2%	0.6%	0.5%	0.4%	

¹ Service area population is defined as the population served by the distribution system. See Technical Methodology 2: Service Area Population (2010 UWMP Guidebook, Section M).
² Provide the source of the population data provided.

Table 3 Water deliveries — actual, 2005					
Water use sectors	2005				
	Metered		Not metered		Total
	# of accounts	Volume (AF)	# of accounts	Volume	Volume
Single family	5,406	9,554	N/A	N/A	9,554
Multi-family	470	817	N/A	N/A	817
Commercial	307	473	N/A	N/A	473
Industrial	49	164	N/A	N/A	164
Institutional/governmental	30	105	N/A	N/A	105
Landscape	143	637	N/A	N/A	637
Agriculture	37	182	N/A	N/A	182
Other	16	18	N/A	N/A	18
Total	6,458	11,949	0	0	11,949

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 4 Water deliveries — actual, 2010					
Water use sectors	2010				
	Metered		Not metered		Total
	# of accounts	Volume	# of accounts	Volume	Volume
Single family	5,454	9,076	N/A	N/A	9,076
Multi-family	464	713	N/A	N/A	713
Commercial	315	450	N/A	N/A	450
Industrial	43	95	N/A	N/A	95
Institutional/governmental	34	90	N/A	N/A	90
Landscape	137	667	N/A	N/A	667
Agriculture	21	89	N/A	N/A	89
Other	16	27	N/A	N/A	27
Total	6,484	11,208	0	0	11,208

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Change
2005-2010
(478)
(104)
(23)
(68)
(15)
30
(93)
9
(741)

Table 5 Water deliveries — projected, 2015					
Water use sectors	2015				
	Metered		Not metered		Total
	# of accounts	Volume	# of accounts	Volume	Volume
Single family	5,461	8,507	N/A	N/A	8,507
Multi-family	465	668	N/A	N/A	668
Commercial	315	422	N/A	N/A	422
Industrial	43	89	N/A	N/A	89
Institutional/governmental	34	84	N/A	N/A	84
Landscape	137	625	N/A	N/A	625
Agriculture	21	84	N/A	N/A	84
Other	17	25	N/A	N/A	25
Total	6,493	10,506	0	0	10,506

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 6 Water deliveries — projected, 2020					
Water use sectors	2020				
	Metered		Not metered		Total
	# of accounts	Volume	# of accounts	Volume	Volume
Single family	5,529	8,615	N/A	N/A	8,615
Multi-family	470	677	N/A	N/A	677
Commercial	319	428	N/A	N/A	428
Industrial	44	91	N/A	N/A	91
Institutional/governmental	34	85	N/A	N/A	85
Landscape	139	633	N/A	N/A	633
Agriculture	21	85	N/A	N/A	85
Other	17	26	N/A	N/A	26
Total	6,573	10,638	0	0	10,638

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Change
2005-2010
107
8
5
1
1
8
1
0
132

Appendix B: Department of Water Resources 2010 UWMP Checklist

Table 7
Water deliveries — projected 2025, 2030, and 2035

Water use sectors	2025		2030		2035 - optional	
	Metered		Metered		Metered	
	# of accounts	Volume	# of accounts	Volume	# of accounts	Volume
Single family	5,805	8,872	5,943	9,087	6,049	9,253
Multi-family	494	697	506	714	515	727
Commercial	335	440	343	451	349	459
Industrial	46	93.29	47	96	48	97
Institutional/governmental	36	88	37	90	38	91
Landscape	140	652	140	668	140	680
Agriculture	20	87	20	89	20	91
Other	18	26	18	27	18	28
Total	6,894	10,956	7,054	11,221	7,177	11,426

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 8
Low-income projected water demands

Low Income Water Demands ¹	2015	2020	2025	2030	2035 - opt
Single-family residential	1	1	1	1	1
Multi-family residential	10	10	11	11	11
Total	11	11	12	12	12

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ Provide demands either as directly estimated values or as a percent of demand.

Table 9
Sales to other water agencies

Water distributed	2005	2010	2015	2020	2025	2030	2035 - opt
Not Applicable							
Total	0	0	0	0	0	0	0

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 10
Additional water uses and losses

Water use ¹	2005	2010	2015	2020	2025	2030	2035 -opt
Saline barriers	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Groundwater recharge	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conjunctive use	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Raw water	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Recycled water	420	504	500	500	500	500	500
System losses	162	200	200	200	200	200	200
Other (define)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	582	704	700	700	700	700	700

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ Any water accounted for in Tables 3 through 7 are not included in this table.

-3.2%

Table 11
Total water use

Water Use	2005	2010	2015	2020	2025	2030	2035 - opt
Total water deliveries (from Tables 3 to 7)	11,949	11,208	10,506	10,638	10,956	11,221	11,426
Sales to other water agencies (from Table 9)	0	0	0	0	0	0	0
System losses (from Table 10)	162	200	200	200	200	200	200
Total Potable	12,111	11,408	10,706	10,838	11,156	11,421	11,626
Recycled water (from Table 10)	420	504	500	500	500	500	500
Total Potable and Non-Potable	12,531	11,912	11,206	11,338	11,656	11,921	12,126

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 12
Retail agency demand projections provided to wholesale suppliers

Wholesaler	Contracted Volume ³	2010	2015	2020	2025	2030	2035 -opt
San Diego County Water Authority	NO SET LIMIT	5,703	7,438	7,570	7,888	8,153	8,358
Lake Hodges	NO SET LIMIT	5,712	3,268	3,268	3,268	3,268	3,268
San Elijo Joint Powers Authority	NO SET LIMIT	497	500	500	500	500	500

Table 13
Base period ranges

Base	Parameter	Value	Units
10- to 15-year base period	2008 total water deliveries	14,714	see below
	2008 total volume of delivered recycled water	535	see below
	2008 recycled water as a percent of total deliveries	3.6%	percent
	Number of years in base period ¹	10	years
	Year beginning base period range	2000	
5-year base period	Year ending base period range ²	2009	
	Number of years in base period	5	years
	Year beginning base period range	2005	
	Year ending base period range ³	2009	

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ If the 2008 recycled water percent is less than 10 percent, then the first base period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first base period is a continuous 10- to 15-year period.

² The ending year must be between December 31, 2004 and December 31, 2010.

³ The ending year must be between December 31, 2007 and December 31, 2010.

Appendix B: Department of Water Resources 2010 UWMP Checklist

Table 14 Base daily per capita water use — 10- to 15-year range				
Base period year		Distribution System Population	Daily system gross water use (mgd)	Annual daily per capita water use (gpcd)
Sequence Year	Calendar Year			
Year 1	2000	19,083	12,797,463	671
Year 2	2001	19,244	11,417,283	593
Year 3	2002	19,266	11,517,271	598
Year 4	2003	19,317	11,993,102	621
Year 5	2004	19,305	11,970,784	620
Year 6	2005	19,124	11,342,293	593
Year 7	2006	19,051	12,143,083	637
Year 8	2007	19,056	13,092,068	687
Year 9	2008	19,071	12,658,195	664
Year 10	2009	19,195	11,987,746	625
Year 11	N/A	N/A	N/A	N/A
Year 12	N/A	N/A	N/A	N/A
Year 13	N/A	N/A	N/A	N/A
Year 14	N/A	N/A	N/A	N/A
Year 15	N/A	N/A	N/A	N/A
Base Daily Per Capita Water Use ¹				631

¹ Add the values in the column and divide by the number of rows.

Table 15 Base daily per capita water use — 5-year range				
Base period year		Distribution System Population	Daily system gross water use (mgd)	Annual daily per capita water use (gpcd)
Sequence Year	Calendar Year			
Year 1	2005	19,124	11,342,293	593
Year 2	2006	19,051	12,143,083	637
Year 3	2007	19,056	13,092,068	687
Year 4	2008	19,071	12,658,195	664
Year 5	2009	19,195	11,987,746	625
Base Daily Per Capita Water Use ¹				641

¹ Add the values in the column and divide by the number of rows.

Table 16 Water supplies — current and projected							
Water Supply Sources		2010	2015	2020	2025	2030	2035 - opt
Water purchased from ¹ :		Wholesaler supplied volume (yes/no)					
San Diego County Water Authority		yes	5,703	7,438	7,570	7,888	8,153
Wholesaler 2 (enter agency name)			N/A	N/A	N/A	N/A	N/A
Wholesaler 3 (enter agency name)			N/A	N/A	N/A	N/A	N/A
Supplier-produced groundwater ²			N/A	N/A	N/A	N/A	N/A
Supplier-produced surface water			5,712	3,268	3,268	3,268	3,268
Transfers in			N/A	N/A	N/A	N/A	N/A
Exchanges in			N/A	N/A	N/A	N/A	N/A
Recycled Water			497	500	500	500	500
Desalinated Water			N/A	N/A	N/A	N/A	N/A
Other			N/A	N/A	N/A	N/A	N/A
Other			N/A	N/A	N/A	N/A	N/A
Total			11,912	11,206	11,338	11,656	11,921

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ Volumes shown here should be what was purchased in 2010 and what is anticipated to be purchased in the future. If these numbers differ from what is contracted, show the contracted quantities in Table 17.

² Volumes shown here should be consistent with Tables 17 and 18.

Table 17 Wholesale supplies — existing and planned sources of water						
Wholesale sources ^{1,2}	Contracted	2015	2020	2025	2030	2035 - opt
San Diego County Water Authority	NO SET LIMIT	7,438	7,570	7,888	8,153	8,358

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ Water volumes presented here should be accounted for in Table 16.

² If the water supplier is a wholesaler, indicate all

³ Indicate the full amount of water

Table 18 Groundwater — volume pumped						
Basin name(s)	Metered or Unmetered ¹	2006	2007	2008	2009	2010
Not Applicable						
Total groundwater pumped						
Groundwater as a percent of total water supply						

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ Indicate whether volume is based on volumetric meter data or another method

Table 19 Groundwater — volume projected to be pumped					
Basin name(s)	2015	2020	2025	2030	2035 - opt
Not Applicable					
Total groundwater pumped					
Percent of total water supply					

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Include future planned expansion

Appendix B: Department of Water Resources 2010 UWMP Checklist

Table 20 Transfer and exchange opportunities			
Transfer agency	Transfer or exchange	Short term or long term	Proposed Volume
Not Applicable			
Total			

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 21 Recycled water — wastewater collection and treatment							
Type of Wastewater	2005	2010	2015	2020	2025	2030	2035 - opt
Wastewater collected & treated in service area	1,070	1,457	1,738	1,844	1,939	2,080	2,282
Volume that meets recycled water standard	494	497	800	800	1,200	1,200	1,200

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 22 Recycled water — non-recycled wastewater disposal							
Method of disposal	Treatment Level	2010	2015	2020	2025	2030	2035 - opt
Rancho Santa Fe CSD	secondary	394	464	533	603	672	728
Fairbanks Ranch CSD	secondary	262	274	285	297	308	317
Total		656	738	818	900	980	1,045
Units (circle one): acre-feet per year million gallons per year cubic feet per year							

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 23 Recycled water — potential future use							
User type	Description	Feasibility ¹	2015	2020	2025	2030	2035 - opt
Agricultural irrigation	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Landscape irrigation ²	Title 22 Recycled Water	Technically and economically feasible.	200	200	600	600	600
Commercial irrigation ³	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Golf course irrigation	Title 22 Recycled Water	Technically and economically feasible.	600	600	600	600	600
Wildlife habitat	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Wetlands	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Industrial reuse	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Groundwater recharge	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Seawater barrier	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Geothermal/Energy	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Indirect potable reuse	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Other (user type)	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Other (user type)	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A
Total			800	800	1,200	1,200	1,200

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ Technical and economic feasibility.

² Includes parks, schools, cemeteries, churches, residential, or other public facilities)

³ Includes commercial building use such as landscaping, toilets, HVAC, etc) and commercial uses (car washes, laundries, nurseries, etc)

Table 24 Recycled water — 2005 UWMP use projection compared to 2010 actual		
Use type	2010 actual use	2005 Projection for 2010 ¹
Agricultural irrigation		
Landscape irrigation ²	186	200
Commercial irrigation ³	N/A	N/A
Golf course irrigation	318	600
Wildlife habitat	N/A	N/A
Wetlands	N/A	N/A
Industrial reuse	N/A	N/A
Groundwater recharge	N/A	N/A
Seawater barrier	N/A	N/A
Geothermal/Energy	N/A	N/A
Indirect potable reuse	N/A	N/A
Other (user type)	N/A	N/A
Other (user type)	N/A	N/A
Total	504	800

Units (circle one): acre-feet per year million gallons per year cubic feet per year

¹ From the 2005 UWMP. There has been some modification of use types. Data from the 2005 UWMP can be left in the

² Includes parks, schools, cemeteries, churches, residential, or other public facilities)

³ Includes commercial building use such as landscaping, toilets, HVAC, etc) and commercial uses (car washes, laundries,

Table 25 Methods to encourage recycled water use						
Actions	Projected Results					
	2010	2015	2020	2025	2030	2035 - opt
Financial incentives						
Metropolitan's Local Resources Program	250	400	400	600	600	600
Water Authority's Local Water Supply Development Program	250	400	400	600	600	600
Total	500	800	800	1,200	1,200	1,200

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Appendix B: Department of Water Resources 2010 UWMP Checklist

Table 26 Future water supply projects								
Project name ¹	Projected start date	Projected completion date	Potential project constraints ²	Normal-year supply ³	Single-dry year supply ³	Multiple-dry year first year supply ³	Multiple-dry year second year supply ³	Multiple-dry year third year supply ³
Eastern Area Recycled Water Phase 1	2013	2015	Facility planning is underway. Constraints include capital costs.	300	300	300	300	300
Eastern Area Recycled Water Phase 2	2022	2025	Facility planning is underway. Constraints include capital costs.	400	400	400	400	400
Total				700	700	700	700	700

Units (circle one): acre-feet per year million gallons per year cubic feet per year
¹ Water volumes presented here should be accounted for in Table 16.
² Indicate whether project is likely to happen and what constraints, if any, exist for project implementation.
³ Provide estimated supply benefits, if available.

Table 27 Basis of water year data	
Water Year Type	Base Year(s)
Average Water Year	2003
Single-Dry Water Year	2007
Multiple-Dry Water Years	1999-2002

Table 28 Supply reliability — historic conditions					
Average / Normal Water Year (2003)	Single Dry Water Year (2007)	Multiple Dry Water Years			
		Year 1 (1999)	Year 2 (2000)	Year 3 (2001)	Year 4 (2002)
13,434	14,665	12,860	14,335	12,789	12,901
Percent of Average/Normal Year:	109.2%	95.7%	106.7%	95.2%	96.0%

Table 29 Factors resulting in inconsistency of supply								
Water supply sources ¹	Specific source name, if any	Limitation quantification	Legal	Environmental	Water quality	Climatic	Additional information	
San Diego County Water Authority	SWP / CRA	N/A	Litigation over Delta fisheries; Litigation over QSA and Transfer Agreement	Potential Delta levee failures, seismic emergencies; Regulation regarding Delta fisheries	High TDS levels in imported water supply	Extreme drought; Potential climatic change		
Lake Hodges	Lake Hodges	N/A	--	--	Eutrophication in summer and storm runoff in winter	Supply variability due to weather		
San Elijo Joint Powers Authority	SEWRF	N/A	Negotiation of recycled water contracts	Regulatory issues affecting recycled water use	High TDS levels in recycled water supply; Potential need for plant upgrades due to emerging regulations	--		

Units (circle one): acre-feet per year million gallons per year cubic feet per year
¹ From Table 16.

Table 30 Water quality — current and projected water supply impacts							
Water source	Description of condition	2010	2015	2020	2025	2030	2035 - opt
Not Applicable							

Units (circle one): acre-feet per year million gallons per year cubic feet per year

Table 31 Supply reliability — current water sources					
Water supply sources ¹	Average / Normal Water Year Supply ² 2010	Single Dry Water Year Supply 2011	Multiple Dry Water Year Supply ²		
			Year 2011	Year 2012	Year 2013
San Diego County Water Authority	5,703	9,236	6,599	6,936	7,182
Lake Hodges	5,712	3,268	3,268	3,268	3,268
San Elijo Joint Powers Authority	497	500	500	500	500
Total	11,912	13,004	10,367	10,704	10,950
Percent of normal year:	100.0%	109.2%	103.4%	106.7%	109.2%

Units (circle one): acre-feet per year million gallons per year cubic feet per year
¹ From Table 16.
² See Table 27 for basis of water type years.

Table 32 Supply and demand comparison — normal year					
	2015	2020	2025	2030	2035 - opt
Supply totals (from Table 16)	11,206	11,338	11,656	11,921	12,126
Demand totals (From Table 11)	11,206	11,338	11,656	11,921	12,126
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Units are in acre-feet per year.

Appendix B: Department of Water Resources 2010 UWMP Checklist

Table 33 Supply and demand comparison — single dry year					
	2015	2020	2025	2030	2035 - opt
Supply totals ^{1,2}	13,117	11,854	12,194	12,472	12,687
Demand totals ^{2,3,4}	13,117	11,854	12,194	12,472	12,687
Difference	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

Units are in acre-feet per year.

¹ Provide in the text of the UWMP text that discusses how single-dry-year water supply volumes were determined.

² Consider the same demands as in Table 3. If

⁴ The urban water target determined in this UWMP will be considered when developing the 2020 water demands included in this table.

Table 34 Supply and demand comparison — multiple dry-year events						
		2015	2020	2025	2030	2035 - opt
Multiple-dry year first year supply	Supply totals ^{1,2}	13,117	11,854	12,194	12,472	12,687
	Demand totals ^{2,3,4}	13,117	11,854	12,194	12,472	12,687
	Difference	0	0	0	0	0
	Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
	Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%
Multiple-dry year second year supply	Supply totals ^{1,2}	13,117	11,854	12,194	12,472	12,687
	Demand totals ^{2,3,4}	13,117	11,854	12,194	12,472	12,687
	Difference	0	0	0	0	0
	Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
	Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%
Multiple-dry year third year supply	Supply totals ^{1,2}	11,213	11,854	12,194	10,847	10,969
	Demand totals ^{2,3,4}	13,117	11,854	12,194	12,472	12,687
	Difference	(1,904)	0	0	(1,625)	(1,718)
	Difference as % of Supply	-17.0%	0.0%	0.0%	-15.0%	-15.7%
	Difference as % of Demand	-14.5%	0.0%	0.0%	-13.0%	-13.5%

Units are in acre-feet per year.

¹ Consider the same sources as in Table 16. If

² Provide in the text of the UWMP text that discusses how single-dry-year water supply volumes were determined.

³ Consider the same demands as in Table 3. If

⁴ The urban water target determined in this UWMP will be considered when developing the 2020 water demands included in this table.

Table 35 Water shortage contingency — rationing stages to address water supply shortages		
Stage No.	Water Supply Conditions	% Shortage
Level 1	Reasonable probability of water supply shortage	10%
Level 2	Shortage due to cutbacks caused by drought or other reduction	20%
Level 3	Increasing cutbacks caused by drought or other reduction	40%
Level 4	SDCWA declares a water shortage emergency	>40%

¹ One of the stages of action must be designed to address a 50 percent reduction in water supply.

Table 36 Water shortage contingency — mandatory prohibitions	
Examples of Prohibitions	Stage When
Using potable water for street washing	
See Table 37	
Other (name prohibition)	
Other (name prohibition)	
Other (name prohibition)	
Other (name prohibition)	
Other (name prohibition)	

Appendix B: Department of Water Resources 2010 UWMP Checklist

Table 37 Water shortage contingency — consumption reduction methods		
Consumption	Stage When	Projected
Stop washing down paved surfaces, except when it is necessary to alleviate safety or sanitation hazards	Level 1 encouraged; Level 2 required	
Stop water waste resulting from inefficient landscape irrigation	Level 1 encouraged; Level 2 required	
Irrigate residential and commercial landscape before 8 am and after 6 pm only	Level 1 encouraged; Level 2 required	
Use hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas that are not connected to an irrigation system	Level 1 encouraged; Level 2 required	
Irrigate nursery and commercial grower's products before 10 am and after 6 pm only	Level 1 encouraged; Level 2 required	
Use re-circulated water to operate ornamental fountains	Level 1 encouraged; Level 2 required	
Wash vehicles using a bucket and a hand-half hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates water on-site	Level 1 encouraged; Level 2 required	
Serve and refill water in restaurants and other food service establishments only upon request	Level 1 encouraged; Level 2 required	
Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily	Level 1 encouraged; Level 2 required	
Repair all water leaks within five (5) days of notification by SFID unless other arrangement are made with the General Manager	Level 1 encouraged; Level 2 required	
Use recycled or non-potable water for construction purposes when available	Level 1 encouraged; Level 2 required	
During the months of June through October, limit residential and commercial landscape irrigation to no more	Level 2	
Limit lawn watering and landscape irrigation, using sprinklers to no more than ten (10) minutes per watering	Level 2	
Repair all leaks within seventy-two (72) hours of notification by SFID unless other arrangements are made	Level 2	
Stop operating ornamental fountains or similar decorative water features unless recycled water is used	Level 2	
No new potable water service shall be provided, no new temporary meters or permanent meters shall be	Level 2	
During the months of June through October, limit residential and commercial landscape irrigation to no more	Level 3	
Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life	Level 3	
Stop washing vehicles except at commercial carwashes that re-circulate water or by high pressure/low	Level 3	
Repair all leaks within forty-eight (48) hours of notification by SFID unless other arrangements are made with	Level 3	
SFID will suspend consideration of annexations to its service area	Level 3	
Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries	Level 4	
Repair all leaks within twenty-four (24) hours of notification by SFID unless other arrangements are made	Level 4	

Table 38 Water shortage contingency — penalties and charges		
Penalties or Charges	Stage When	
Penalty for excess use beyond Water Allocation established for each property serviced by SFID	Level 2	
Charge for excess use		
Other (name penalties or charges)		
Other (name penalties or charges)		
Other (name penalties or charges)		
Other (name penalties or charges)		
Other (name penalties or charges)		
Other (name penalties or charges)		

Appendix B: Department of Water Resources 2010 UWMP Checklist

Appendix C

City and County Notification Letters

Appendix C: City and County Notification Letters

Santa Fe Irrigation District



March 15, 2011

County Dept. of Planning and Land Use
Attn: Devon Muto
Mail Station 0650
5201-B Ruffin Road
San Diego, CA 92123

Re: Santa Fe Irrigation District 2010 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a formal notification to all city and county agencies within Santa Fe Irrigation District's (SFID) service area that SFID's 2005 Urban Water Management Plan (UWMP) is being reviewed and updated.

In 2005, SFID developed an UWMP that defined SFID's approach to provide adequate water supplies to meet existing and future demands under a range of water supply conditions, including water shortages. During development of the 2005 UWMP, city and county agencies within SFID's service area were encouraged to provide input. There was also a public hearing prior to adoption of the 2005 UWMP. A copy of the 2005 UWMP is available at the SFID website: <http://www.sfidwater.org/>.

California state law requires updates of the UWMP every five years. In order to be in compliance with state law, SFID's updated 2010 UWMP must be finalized and adopted by July 1, 2011. SFID is currently in the process of preparing the updated 2010 UWMP and encourages your input during the development process. **Your input must be received by May 25, 2011.** This will enable SFID to incorporate your comments and finalize the document prior to notification to the general public regarding a public hearing to provide comments on the proposed final Updated 2010 UWMP. If you have any input for the updated 2010 UWMP, require additional information, or would like to set up a meeting to discuss SFID's 2010 UWMP update process, please contact me at (858) 227-5799, or by email at jparks@sfidwater.org.

Sincerely,

A handwritten signature in blue ink that reads "Jessica L. Parks". The signature is fluid and cursive, with the first name being the most prominent.

Jessica L. Parks
Management Analyst
Santa Fe Irrigation District
jparks@sfidwater.org

Appendix C: City and County Notification Letters

Santa Fe Irrigation District



March 15, 2011

City of Solana Beach
Attn: Tina Christiansen
635 S. Highway 101
Solana Beach, CA 92075

Re: Santa Fe Irrigation District 2010 Urban Water Management Plan Update

In conformance with California Water Code Division 6, Part 2.6, Section 10621, this letter serves as a formal notification to all city and county agencies within Santa Fe Irrigation District's (SFID) service area that SFID's 2005 Urban Water Management Plan (UWMP) is being reviewed and updated.

In 2005, SFID developed an UWMP that defined SFID's approach to provide adequate water supplies to meet existing and future demands under a range of water supply conditions, including water shortages. During development of the 2005 UWMP, city and county agencies within SFID's service area were encouraged to provide input. There was also a public hearing prior to adoption of the 2005 UWMP. A copy of the 2005 UWMP is available at the SFID website: <http://www.sfidwater.org/>.

California state law requires updates of the UWMP every five years. In order to be in compliance with state law, SFID's updated 2010 UWMP must be finalized and adopted by July 1, 2011. SFID is currently in the process of preparing the updated 2010 UWMP and encourages your input during the development process. **Your input must be received by May 25, 2011.** This will enable SFID to incorporate your comments and finalize the document prior to notification to the general public regarding a public hearing to provide comments on the proposed final Updated 2010 UWMP. If you have any input for the updated 2010 UWMP, require additional information, or would like to set up a meeting to discuss SFID's 2010 UWMP update process, please contact me at (858) 227-5799, or by email at jparks@sfidwater.org.

Sincerely,

A handwritten signature in blue ink that reads "Jessica L. Parks". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Jessica L. Parks
Management Analyst
Santa Fe Irrigation District
jparks@sfidwater.org

Appendix D

Public Hearing Notice

**SANTA FE IRRIGATION DISTRICT
PUBLIC HEARING NOTICE
2010 URBAN WATER MANAGEMENT PLAN**

Notice is hereby given that on Thursday, June 16, 2011 at 8:30 a.m. at the Santa Fe Irrigation District, 5920 Linea del Cielo, Rancho Santa Fe, California 92067, the Board of Directors of the Santa Fe Irrigation District will conduct a public hearing pursuant to Water Code sections 10642 and 10608.26 to consider and receive comments and input on the Santa Fe Irrigation District Draft 2010 Urban Water Management Plan (Draft 2010 UWMP), to allow community input regarding the District's implementation plan for complying with Part 2.55 (SBX7-7) of the Water Code, and to consider the potential economic impacts of the implementation plan. Public input from diverse social, cultural and economic elements of the population is encouraged and will be considered during the finalization of the 2010 UWMP.

A copy of the Draft 2010 UWMP is available for public review during normal business hours at the offices of the Santa Fe Irrigation District at the address set forth above. In addition, an electronic version of the Draft 2010 UWMP is accessible at www.sfidwater.org. Any written comments regarding the Draft 2010 UWMP must be received at the District by the close of business on June 13, 2011 and should be directed to:

Santa Fe Irrigation District
5920 Linea del Cielo
P.O. Box 409
Rancho Santa Fe, California 92067-0409
Attention: Jessica Parks

Public comments can also be made at the public hearing at the time and place first listed above. Upon conclusion of the public hearing, the Board of Directors may revise, change, modify and/or adopt the Draft 2010 UWMP. Questions regarding the public hearing or the Draft 2010 UWMP should be directed to Ms. Jessica Parks at (858) 227-5799. If you are disabled in any way and need accommodation to participate in the public hearing, please call the Board Secretary at (858) 756-2424 for assistance at least three (3) working days prior to the hearing so the necessary arrangements can be made.

This space is for the County Clerk's Filing Stamp

PROOF OF PUBLICATION (2010 & 2011 C.C.P.)

STATE OF CALIFORNIA

County of San Diego

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years and not a party to or interested in the above-titled matter. I am the principal clerk of the printer

Proof of Publication of

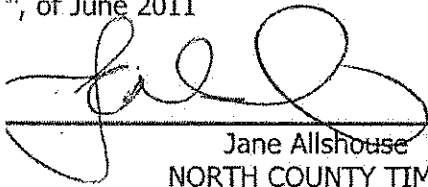
North County Times

formerly known as the Blade-Citizen and The Times-Vocate and which newspapers have been adjudicated newspapers of general circulation by the Superior Court of the County of San Diego, State of California, for the City of Oceanside and the City of Escondido, Court Decree number 171349, for the County of San Diego, that the notice of which the annexed is a printed copy (set in type not smaller than npariel), has been published in each regular and tire issue of said newspaper and not in any pplement thereof on the following dates, to-wit:

**May 29th, &
June 05th 2011**

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Printed at **Escondido**, California
on the _____th, of June 2011



Jane Allshouse
NORTH COUNTY TIMES
Legal Advertising

**SANTA FE IRRIGATION DISTRICT
PUBLIC HEARING NOTICE
2010 URBAN WATER MANAGEMENT PLAN**

Notice is hereby given that on Thursday, June 16, 2011 at 8:30 a.m. at the Santa Fe Irrigation District, 5920 Linea del Cielo, Rancho Santa Fe, California 92067, the Board of Directors of the Santa Fe Irrigation District will conduct a public hearing pursuant to Water Code sections 10642 and 10608.25 to consider and receive comments and input on the Santa Fe Irrigation District Draft 2010 Urban Water Management Plan (Draft 2010 UWMP) to allow community input regarding the District's implementation plan for complying with Part 2.55 of the Water Code, to consider the potential economic impacts of the implementation plan, and to adopt a method pursuant to Water Code section 10608.20(b) for determining the District's urban water use target. Public input from diverse social, cultural and economic elements of the population is encouraged and will be considered during the finalization of the 2010 UWMP.

On or before May 19, 2011, a copy of the Draft 2010 UWMP shall be available for public review during normal business hours at the offices of the Santa Fe Irrigation District at the address set forth above. In addition, an electronic version of the Draft 2010 UWMP will be accessible at www.sfidwater.org. Any written comments regarding the Draft 2010 UWMP must be submitted by the close of business on June 15, 2011 and should be sent to:

Santa Fe Irrigation District
5920 Linea del Cielo P.O. Box 409
Rancho Santa Fe, California 92067-0409
Attention: Jessica Parks

Public comments can also be made at the public hearing at the time and place first listed above. Upon conclusion of the public hearing, the Board of Directors may revise, change, modify and/or adopt the Draft 2010 UWMP. Questions regarding the public hearing or the Draft 2010 UWMP should be directed to Ms. Jessica Parks at 858-227-5799. If you are disabled in any way and need accommodation to participate in the public hearing, please call the Board Secretary at 858-758-2424 for assistance at least three (3) working days prior to the hearing so the necessary arrangements can be made.

not 2291399 • 05/29, 06/05/2011

Appendix E

2010 UWMP and SBx7-7 Targets Adoption Resolution

RESOLUTION NO. 11-10

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
SANTA FE IRRIGATION DISTRICT ADOPTING THE
2010 URBAN WATER MANAGEMENT PLAN**

WHEREAS, the Urban Water Management Planning Act (Water Code, Part 2.6, Section 10610 et seq.), enacted by the California Legislature during the 1983-1984 Regular Session, and as subsequently amended, mandates that every supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, and update its Urban Water Management Plan at least once every five years on or before December 31 in years ending in five and zero; and

WHEREAS, legislation referred to as the Water Conservation Act of 2009 (Water Code, Part 2.55, Section 10608 et seq.), enacted by the California Legislature during the 2009-2010 Extraordinary Session, extended the time by which urban retail water agencies must adopt their 2010 Urban Water Management Plans until July 1, 2011, and, among other things, established requirements for urban retail water suppliers to prepare targets for achieving increased water use efficiency by the years 2015 and 2020 in accordance with the goal of reducing per capita water use statewide; and

WHEREAS, the Santa Fe Irrigation District ("District") is an urban retail water supplier for purposes of the requirements of the Urban Water Management Planning Act and the Water Conservation Act of 2009; and

WHEREAS, the District prepared and filed its 2005 Urban Water Management Plan with the California Department of Water Resources by December 31, 2005; and

WHEREAS, in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009, the District has prepared its 2010 Urban Water Management Plan (2010 UWMP) and has undertaken certain coordination, notice, public involvement, public comment, and other procedures in relation to its 2010 UWMP;

WHEREAS, as authorized by Section 10620(e) of the Urban Water Management Planning Act, the District has prepared its 2010 UWMP with its own staff, with the assistance of consulting professionals, and in cooperation with other governmental agencies, and has utilized and relied upon industry standards and the expertise of industry professionals in preparing its 2010 UWMP, and has also utilized and relied upon the California Department of Water Resources Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan (March 2011), and the California Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use for the Consistent Implementation of the Water Conservation Act of 2009 (February 2011) in preparing its 2010 UWMP; and

Appendix E: 2010 UWMP and SBx 7-7 Targets Adoption Resolution

WHEREAS, in accordance with applicable law, including Water Code sections 10608.26 and 10642, and Government Code section 6066, a properly noticed public hearing regarding the District's 2010 UWMP was conducted by the District's Board of Directors on June 16, 2011 in order to provide members of the public and other interested entities with the opportunity to be heard in connection with the 2010 UWMP and the proposed adoption thereof; and

WHEREAS, pursuant to said public hearing on the 2010 UWMP, the District, among other things, encouraged the active involvement of diverse social, cultural, and economic elements of the population within the District's service area with regard to the preparation of the 2010 UWMP, allowed community input regarding the District's implementation plan for complying with the Water Conservation Act of 2009, considered the economic impacts of the District's implementation plan for complying with the Water Conservation Act of 2009, and adopted Method 1 under Water Code section 10608.20(b) for determining its urban water use targets; and

WHEREAS, the Board of Directors of the District has reviewed and considered the purposes and requirements and of the Urban Water Management Planning Act and the Water Conservation Act of 2009, the contents of the 2010 UWMP, and the documentation contained in the administrative record in support of the 2010 UWMP, and has determined that the factual analyses and conclusions set forth in the 2010 UWMP are supported by substantial evidence.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Santa Fe Irrigation District as follows:

1. The District hereby adopts Method 1 under Water Code section 10608.20(b) for determining its urban water use targets and the 2010 Urban Water Management Plan is hereby adopted and ordered filed with the Board Secretary;
2. The General Manager is hereby authorized and directed to include a copy of this Resolution in the 2010 Urban Water Management Plan and, in accordance with Water Code section 10644(a), to file the 2010 Urban Water Management Plan with the California Department of Water Resources, the California State Library, and any city or county within which the District provides water supplies within thirty (30) days after this adoption date;
3. The General Manager is hereby authorized and directed, in accordance with Water Code section 10645, to make the 2010 Urban Water Management Plan available for public review not later than thirty (30) days after filing a copy thereof with the California Department of Water Resources;
4. The General Manager is hereby authorized and directed, in accordance with Water Code section 10635(b), to provide that portion of the 2010 Urban Water Management Plan prepared pursuant to Water Code section 10635(a) to

Appendix E: 2010 UWMP and SBx 7-7 Targets Adoption Resolution

any city or county within which the District provides water supplies not later than sixty (60) days after filing a copy thereof with the California Department of Water Resources;

5. The General Manager is hereby authorized and directed to implement the components of the 2010 Urban Water Management Plan in accordance with the Urban Water Management Planning Act and the Water Conservation Act of 2009;
6. The General Manager is hereby authorized and directed to recommend to the Board of Directors additional steps necessary or appropriate to effectively carry out the implementation of the 2010 Urban Water Management Plan.


ADOPTED this 16th day of June 2011, by the following vote:

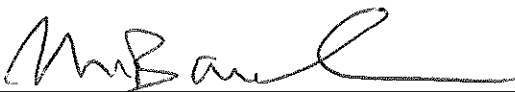
AYES:

NOES:

ABSTAIN:

ABSENT:


Michael T. Hogan
President

ATTEST: 
Michael J. Bardin
Secretary/Treasurer

Seal:

Appendix F

Low Income Development Service Priority Resolution

RESOLUTION No. 11-07

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
SANTA FE IRRIGATION DISTRICT
ADOPTING A SERVICES PRIORITY POLICY
FOR LOWER INCOME DEVELOPMENTS
IN ACCORDANCE WITH SB 1087**

WHEREAS in 2005 the California Legislature enacted SB 1087 (amending Section 65589.7 of the Government Code and adding Section 10631.1 of the Water Code) requiring, among other things, that providers of water or sewer services grant priority for the provision of these services to “proposed developments that include housing units for lower income households”; and

WHEREAS SB 1087 defines “proposed developments that include housing units for lower income households” as developments that include dwelling units to be sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety Code, at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, or an affordable rent, as defined in Section 50053 of the Health and Safety Code; and

WHEREAS SB 1087 further requires that water or sewer providers adopt written policies and procedures, not later than July 1, 2006 and at least once every five years thereafter, with specific objective standards for meeting the priority requirement for lower income developments; and

WHEREAS the Santa Fe Irrigation District (“District”) is a water service provider subject to the requirements of SB 1087, and therefore adopted Resolution 06-08 at a meeting of the Board of Directors on June 15, 2006 setting forth the District’s policy for implementing SB 1087; and

WHEREAS the Board of Directors of the District desires to adopt this Resolution as a renewal of its policy and procedures to ensure that proposed developments that include housing units for lower income households receive a priority for service in accordance with SB 1087.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Santa Fe Irrigation District as follows:

Section 1. Policy and Procedures.

A. In accordance with SB 1087, the District shall grant water service priority to any “proposed developments that include housing units for lower income households.” For purposes of this policy, “proposed developments that include housing units for lower income households” shall be developments that include dwelling units to be sold or rented to lower income households, as defined in Section 50079.5 of the Health and Safety

Appendix F: Low Income Development Service Priority Resolution

Code, at an affordable housing cost, as defined in Section 50052.5 of the Health and Safety Code, or an affordable rent, as defined in Section 50053 of the Health and Safety Code.

B. In accordance with SB 1087, the District's ongoing policy and procedures for ensuring service priority to proposed developments that include housing units for lower income households shall take the following factors into account:

1. Any regulations and restrictions that have been adopted or may be adopted in the future by the District pursuant to Chapter 3 (commencing with Section 350) of Division 1 of the Water Code relating to water shortage emergencies; and

2. The availability of water supplies as determined by the District pursuant to its 2010 Urban Water Management Plan and any updates thereto adopted pursuant to Part 2.6 (commencing with Section 10610) of Division 6 of the Water Code.

C. In accordance with SB 1087, it is further established that the District shall not deny or condition the approval of an application for water services to, or reduce the amount of such services applied for by, a proposed development that includes housing units affordable to lower income households unless the District makes specific written findings that the denial, condition, or reduction is necessary due to the existence of one or more of the following:

1. The District does not have a "sufficient water supply" as defined in Government Code 66473.7(a)(2), or the District is operating under a water shortage emergency as defined in Section 350 of the Water Code, or the District does not have sufficient water treatment or distribution capacity to serve the needs of the proposed development, as demonstrated by a written engineering analysis and report;

2. The District is subject to a compliance order issued by the State Department of Health Service that prohibits new water connections; or

3. The applicant has failed to agree to reasonable terms and conditions relating to the provision of service from the District, including, but not limited to, the requirements of local, state, or federal laws and regulations or payment of a fee or charge imposed pursuant to Section 66013 of the Government Code.

D. In preparing its 2010 Urban Water Management Plan and any updates thereto pursuant to Part 2.6 (commencing with Section 10610) of Division 6 of the Water Code, the District's water use projections required by Water Code section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the District.

Section 2. Rescission of Conflicting Resolutions or Policies. All prior resolutions or policies inconsistent with this Resolution are hereby repealed but only to the extent that

Appendix F: Low Income Development Service Priority Resolution

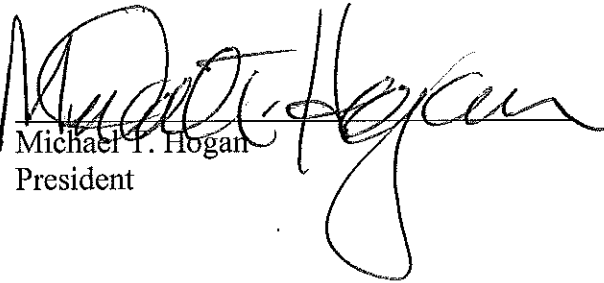
they conflict with this Resolution.

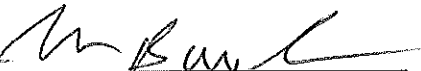
Section 3. No Entitlement to Service Created. As further evidenced by Water Code sections 10635(c) and 10914, and Government Code section 66473.7(m), nothing in this Resolution is intended or shall be construed as creating a right or entitlement to water service or any specified level of water service, nor shall this Resolution be construed to either impose, expand or limit any duty concerning the District's obligation to provide service to its existing customers or to any future potential customers.

Section 4. Effective Date. This Resolution is effective upon its adoption.

PASSED, APPROVED, AND ADOPTED, at a Meeting of the Board of Directors of the Santa Fe Irrigation District held on the 19th day of May, 2011 by the following vote:

AYES: Dunford, Ingalls, Irvin, Menshek, Hogan
NOES: None
ABSENT: None
ABSTAIN: None


Michael T. Hogan
President

ATTEST: 
Michael J. Bardin
Secretary/Treasurer

Seal:

Appendix G

Lake Hodges Water Agreement

DUPLICATE

AGREEMENT

THIS AGREEMENT is executed by and between THE CITY OF SAN DIEGO, a municipal corporation, hereinafter referred to as "San Diego", SANTA FE IRRIGATION DISTRICT, a California irrigation district, hereinafter referred to as "SANTA FE", and SAN DIEGUITO WATER DISTRICT, a California irrigation district, hereinafter referred to as "SAN DIEGUITO". Santa Fe and San Dieguito are referred to collectively as "Districts".

RECITALS

- A. Santa Fe and San Dieguito, and their predecessors in interest have acquired rights to local water collected in Lake Hodges pursuant to contracts with the owners of Lake Hodges since the Hodges Dam was constructed.
- B. San Diego, Santa Fe and San Dieguito entered into an agreement on December 20, 1956 relating to the settlement of certain disputes then existing among them and providing, among other matters, for a fixed quantity of water to be provided to the Districts at local water costs.
- C. As a result of changed circumstances, San Diego, Santa Fe and San Dieguito entered into an agreement effective April 1, 1969 a copy of which is on file in the Office of the City Clerk as Document Number 728946 (the "1969 Agreement") pursuant to which the Districts purchased from San Diego the San Dieguito Reservoir and Dam including the conduit (flume) from the weir at Lake Hodges to the Reservoir, the 30" water transmission line originating at the San Diego County Water Authority Aqueduct and all appurtenances necessary for the operation of those facilities. The April 1, 1969 Agreement also established rights and duties of the parties with respect to the sale and purchase of Local Water collected in Lake Hodges for a contract term expiring on September 30, 2019.
- D. The April 1, 1969 Agreement memorialized a property right owned by the Districts to Local Water collected in Lake Hodges. It rescinded and superseded all prior agreements, and is the document which currently establishes the rights of the parties.
- E. San Diego, the San Diego County Water Authority, and the Olivenhain Municipal Water District now contemplate the development of an Emergency Storage Project which will result in the reoperation of Lake Hodges in combination with a newly developed reservoir called the Mt. Israel Reservoir. This project is estimated to increase the local yield of Lake Hodges from an average of approximately 5,769 acre feet per year to approximately 11,400 acre feet per year. Given this contemplated reoperation of Lake Hodges, San Diego, San Dieguito and Santa Fe desire to restate and redefine their rights and obligations concerning Local Water in Lake Hodges.

Appendix G: Lake Hodges Water Agreement

- F. Whether the Emergency Storage Project is constructed or not, in order for San Diego to use Local Water from Lake Hodges, San Diego must construct a project to transport said Local Water.
- G. This Agreement is intended to rescind all previous agreements among the parties and restate their respective rights with respect to Lake Hodges.

AGREEMENT

NOW, THEREFORE, in consideration of the recitals and the terms and conditions set forth below and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, San Diego, San Dieguito and Santa Fe agree as follows:

- 1. Unless otherwise defined herein, the following words shall have the meanings indicated:
 - A. "Local Water" means all water collected in Lake Hodges from any source other than water transported through the San Diego County Water Authority Aqueducts, provided that Local Water shall include "Evaporative Make Up Water".
 - B. "Imported Water" means water transported through the San Diego County Water Authority Aqueducts but excludes "Evaporative Make Up Water."
 - C. "Water Contract Year " means the period from October 1 of any given year through September 30 of the Following Year.
 - D. "Evaporative Make Up Water" means all water credited by the San Diego County Water Authority as Local Water under Lake Hodges Improvement Project.
 - E. "Lake Hodges Improvement Project" means a project to transfer and/or store Local Water which involves the construction of infrastructure necessary to pipe and transport water to reservoirs, and which is projected to increase the average annual yield of Lake Hodges. Lake Hodges Improvement Project may be the Emergency Storage Project described in Recital E above or another project constructed to enable San Diego to use Local Water.
 - F. "Local Water Credit" means an amount of water to which the Districts are entitled to purchase but which they did not purchase in any Water Contract Year pursuant to paragraph 4 below.

Appendix G: Lake Hodges Water Agreement

- G. "Local Water Credit Balance" means the cumulative amount of water which the Districts or San Diego were entitled to purchase but which they did not purchase.
- H. "1969 Agreement" shall have the meaning assigned thereto in Recital C above.
- I. "Districts" means the Santa Fe Irrigation District and the San Dieguito Water District.
- J. "Weir" means the Lake Hodges Flume Weir as described on Exhibit "A" attached hereto and made a part hereof.
- K. "Flume" means the Lake Hodges Canal commencing at the Weir and ending at the San Dieguito Reservoir.
- L. "Control Facility at Badger Filtration Plant" means that flow control facility described on Exhibit "A" attached hereto and made a part hereof by reference.

2. The parties hereby rescind all previous agreements among them with respect to Lake Hodges, and specifically abrogate, set aside and nullify all their respective rights under such agreements, including, but not limited to, the 1969 Agreement among the three parties.

3. Until such time as the operation of the Lake Hodges Improvement Project commences, the Parties agree as follows:

- A. San Diego will sell to Districts all of the Local Water collected in Lake Hodges if the water is requested by Districts, provided that Local Water in Lake Hodges may be sold by San Diego to any other person, firm, corporation or agency if the following conditions exist:
 - i. There is contained in Lake Hodges at the time water is delivered to such other entity a quantity of Local Water in excess of the quantities San Diego is required to furnish Districts for the remainder of the Water Contract Year during which such sale is to be made; and
 - ii. There will be in storage in Lake Hodges available for the exclusive use of Districts at the end of said Water Contract Year not less than 8,300 acre feet of usable water; and
 - iii. The water is put to beneficial use by the purchaser.

San Diego may also release water from Lake Hodges in emergency to prevent or reduce flood or threat of flood damage.

Appendix G: Lake Hodges Water Agreement

- B. Districts shall pay San Diego for all Local Water delivered at the rate of \$31.00 per acre foot, which represents the current cost per acre foot to San Diego of operating and maintaining Lake Hodges, excluding the cost of recreation, including depreciation calculated on the straight line method. This price shall remain effective through September 30, 1999, which period coincides with the end of the Water Contract Year. On or prior to the end of each succeeding two year period the amount payable by Districts to San Diego per acre foot for Local Water during the succeeding two (2) year period, shall be calculated. The cost per acre foot payable during each particular succeeding two (2) year period shall be determined as follows:
- i. Calculate the total cost of operating and maintaining Lake Hodges during the immediately preceding two year period, plus the cost of capital improvements and repairs to Lake Hodges and Lake Hodges Dam during such two year period amortized over the useful life of the improvement, plus depreciation calculated on the straight line method divided by the total number of acre feet of Local Water sold by San Diego during the immediately preceding two year period.
 - ii. For purposes of calculating depreciation, the present depreciated value of Lake Hodges is agreed to be \$307,093.
 - iii. San Diego shall keep accurate records of all costs which it incurs related to Lake Hodges and of all Local Water sold to others than Districts, which records shall be available at all reasonable times for inspection by authorized representatives of the Districts.
- C. Districts shall determine the rates of delivery of water to the Districts pursuant to this Agreement in order to meet their respective requirements, and to discharge their obligation to provide potable water to their respective customers.
- D. Measurement and delivery of water by San Diego to Districts shall be as follows:
- i. At the head of an open conduit immediately downstream from Lake Hodges Dam as shown on Exhibit "A," hereinafter referred to as "the Weir."
 - ii. San Diego shall at its expense maintain the Weir in as good condition and repair at all times as is possible by the exercise of ordinary care. Districts shall have the right to inspect the Weir and test it for accuracy with a representative of San Diego at reasonable times during business hours with reasonable notice, and the right, if it shall

Appendix G: Lake Hodges Water Agreement

be so desired, to have a representative present at any test or reading of said meter by San Diego.

- E. Santa Fe shall be entitled to receive 57 1/3% and San Dieguito shall be entitled to receive 42 2/3% of the first 7,500 acre feet of water supplied in any given Water Contract Year pursuant to this Agreement. If an amount in excess of 7,500 acre feet of water is supplied to Districts within any given year, each District shall be entitled to receive 50% of such excess. San Diego shall have no responsibility or obligation as between the Districts to meter or allocate water supplied to Districts or to otherwise ensure that there has been compliance with the provisions contained in this paragraph.
- F. San Diego shall bill each District monthly for water supplied by San Diego through the Weir during the preceding calendar month. Each District shall pay to San Diego the amount due San Diego for water so furnished each District within thirty (30) calendar days after receipt of such bill.
- G. San Diego will operate Lake Hodges and all of its facilities, and such operation shall conform to the requirements of all local, state and federal laws and regulations concerning the quality of local water collected in water storage reservoirs. San Diego will use its best efforts to ensure that polluted water from any source is not collected in Lake Hodges. Except as provided in this paragraph, San Diego does not make any assurances concerning water quality.
- H. The Districts' right to the delivery and purchase of Local Water collected in Lake Hodges as provided in paragraph 3 above is a property right which was purchased by the Districts for valuable consideration. The extent of such property right is defined and limited by the terms of this Agreement.

4. Upon commencement of the operation of Lake Hodges Improvement Project the Parties agree as follows:

- A. Prior to commencing construction of Lake Hodges Improvement Project San Diego shall project an average annual yield of Local Water in Lake Hodges. Said projected average annual yield shall be based upon the construction and design operation of Lake Hodges Improvement Project. Said projection shall be performed by the City and approved by Districts. Subject to the processes and procedures specified herein, in the event the Lake Hodges Improvement Project's average annual yield of Local Water is projected to be 11,400 acre feet or more, all Local Water shall be divided one-half to San Diego and one-half to Districts. In the event the projected average annual yield of Local Water is less than 11,400 acre feet the Local Water shall be divided so as to allocate an average annual yield to Districts of 5,700 acre feet per year.

Appendix G: Lake Hodges Water Agreement

- B. During the first Water Contract Year after commencement of the operation of Lake Hodges Improvement Project, San Diego will deliver and sell to Districts all of the Local Water requested by Districts up to 5,700 acre feet, including all water delivered pursuant to paragraph 3 above. All remaining Local Water in that Water Contract Year shall belong to San Diego.
- C. Beginning with the first Water Contract Year after commencement of the operation of Lake Hodges Improvement Project, if such Project's average annual yield of Local Water is projected to be 11,400 acre feet or more, all Local Water shall be divided one-half to San Diego and one-half to Districts. San Diego shall deliver and sell to the Districts their one-half of the amount of Local Water collected in Lake Hodges during the preceding Water Contract Year if said Local Water is requested by Districts. If a portion of said Local Water is not requested by Districts, it shall become a Local Water Credit as described in and subject to the provisions of paragraph 4H hereof. Whatever the actual amount of Local Water in any given Water Contract Year, except as otherwise provided in paragraph D below, it shall be shared as provided above, without any cap or floor.
- D. In the event Lake Hodges Improvement Project is constructed or operated so that the projected average yield of Local Water is less than 11,400 acre feet per year, the percentage of water which San Diego shall deliver and sell to Districts shall be adjusted to allow for an average annual yield to Districts of 5,700 acre feet per year. The percentage splits will be determined by a calculation of anticipated average yield to be performed by San Diego and approved by Districts. For example, if the design and operation of Lake Hodges Improvement Project has a projected average annual yield of 10,000 acre feet per year, the percentages would be 57% to Districts and 43% to San Diego.
- E. Notwithstanding paragraph 4C, if the average annual yield of Local Water becomes less than 11,400 acre feet due to operational constraints required by any regulatory authority having jurisdiction, or due to the siltation of the reservoir, then all Local Water shall continue to be divided one-half to San Diego and one-half to Districts.
- F. The point of delivery and measurement for Local Water purchased after commencement of the operation of Lake Hodges Improvement Project shall be the Weir as described in paragraph 3D if wheeled through the Flume. For all water delivered through Lake Hodges Improvement Project the point of delivery and measurement shall be the Control Facility located at the Badger Filtration Plant as described on Exhibit "A" attached hereto, and by this reference incorporated herein. For all water delivered through Lake Hodges

Appendix G: Lake Hodges Water Agreement

Improvement Project, the Districts shall pay San Diego a delivery charge equal to San Diego's cost.

- G. Districts shall pay San Diego for all water purchased in accordance with the provisions of Paragraph 3B, provided that the calculation of the costs of operating and maintaining Lake Hodges shall not include any costs incurred as part of the operation of Lake Hodges Improvement Project. The provisions of paragraphs 3C, 3D as to measurement of deliveries, 3E, 3F and 3G shall also apply to deliveries of Local Water after commencement of the operation of Lake Hodges Improvement Project.
- H. Credits for Local Water to which Districts own an entitlement but which is not purchased in any given Water Contract Year shall be the subject of a Local Water Credit Balance. The Districts' Local Water Credit Balance is that water which the Districts were entitled to purchase but which they did not purchase in any Water Contract Year. The Districts' Local Water Credit shall be reduced to account for evaporative and other losses in the amount of nine percent (9%) per year. Districts may draw on that Local Water Credit Balance by purchasing water represented by that Local Water Credit Balance from San Diego at Local Water prices at any time. Districts shall not receive credit for water which overflows Lake Hodges Dam or water which San Diego is otherwise unable to use or store in a facility other than Lake Hodges. In the event water overflows the Lake Hodges Dam it shall not be considered Local Water. In the event Districts purchase Local Water in any given Water Contract Year which is in excess of its Local Water Credit Balance, San Diego shall have a Local Water Credit Balance. In that event San Diego may draw on that Local Water Credit Balance by purchasing water represented by that Local Water Credit Balance from Districts at Local Water prices at any time. An example of the application of this Local Water Credit Balance is attached hereto as Exhibit C and by this reference incorporated herein.
- I. On or before October 1 of each year Districts shall provide San Diego with an estimate of projected Local Water use by the Districts for the forthcoming Water Year.
- J. In the event San Diego or any party acting on San Diego's behalf seeks to deposit reused water in Lake Hodges or in wells near Lake Hodges said water shall not be considered Local Water for purposes of this Agreement and the parties shall agree upon a formula to enable San Diego to receive credit for said reused water.

5. Upon commencement of the operation of Lake Hodges Improvement Project the right described in Paragraph 3H above shall terminate and be replaced with the Districts' right to delivery and purchase of all Local Water collected in Lake Hodges as provided in Paragraph 4 above as a

property right which was purchased by the Districts for a valuable consideration. In the event Lake Hodges Improvement Project is not constructed, Districts' property right shall be that right described in Paragraph 3H above. The extent of such property right is defined and limited by the terms of this Agreement.

6. If any provision of this Agreement shall for any reason be held illegal or ultra vires as to San Diego, the remaining portions of this Agreement shall at the option of either District remain in full force and effect as to San Diego and such Districts; if any provision of this Agreement shall for any reason be held illegal or ultra vires as to either District, the remaining portions of this Agreement shall at the option of San Diego remain in full force and effect as to such District and San Diego. If this Agreement shall be held illegal or ultra vires in its entirety as to any party, then the contracts heretofore existing between the Parties hereto shall continue in full force and effect as if this Agreement had never been executed, and none of the rights of any party hereto shall be in any manner affected by the execution of this Agreement.

7. San Diego shall operate and maintain Lake Hodges and Lake Hodges Dam in strict accordance with all state, federal and local laws and regulations and will make all reasonable efforts to maintain and repair Lake Hodges and Lake Hodges Dam to continue operations in order to maintain the maximum projected annual average yield of Local Water.

8. In the event San Diego elects to terminate or substantially change operations of Lake Hodges so as to eliminate the ability of Districts to obtain Local Water, Districts shall have and are hereby conveyed an option to purchase Lake Hodges and Hodges Dam. Upon exercise of said option, Districts shall pay San Diego just compensation in accordance with laws, principles and definitions used in eminent domain proceedings conducted for the purpose of public acquisition of private property for public use.

9. This Agreement shall be binding on and inure to the benefit of the successors and assigns of the respective parties.

10. This Agreement shall be in full force and effect for so long as Lake Hodges is operated.

11. In the event qualified engineers and/or the state or federal government determine or order that the Lake Hodges Dam must be rebuilt or replaced in order for Lake Hodges operations to continue, San Diego shall have the right to rebuild and replace the Dam, or terminate Lake Hodges operations. In the event San Diego determines to rebuild or replace Lake Hodges Dam, Districts shall have an option to terminate this Agreement or extend this Agreement for so long as Lake Hodges is operated. In the event Districts exercise their option to extend the Agreement the price which Districts pay San Diego for Local Water as provided in Paragraph 3B or 4E shall be recalculated so as to reflect the full capital costs of rebuilding or replacing the Lake Hodges Dam by increasing the present depreciated value of Lake Hodges to include the full price of rebuilding or replacing Lake Hodges Dam. In the event San Diego exercises its right to terminate Lake Hodges operations Districts shall have and are hereby conveyed an option to purchase Lake Hodges property and rebuild or replace Lake Hodges Dam themselves. Upon exercise of said option, Districts shall

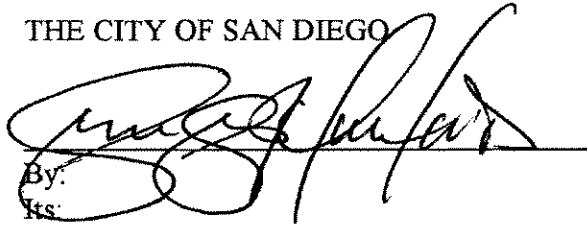
Appendix G: Lake Hodges Water Agreement

pay San Diego just compensation in accordance with laws, principles and definitions used in eminent domain proceedings conducted for the purpose of public acquisition of private property for public use.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the day and year first above written.

THE CITY OF SAN DIEGO

Dated: MAR 17 1998

By: 
Its:

I hereby approved the form and legality of this Agreement this 19th day of March, 1998. CS

CASEY GWINN, CITY ATTORNEY

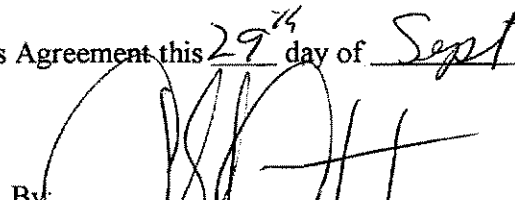
By: 
Kelly J. Salt, Deputy City Attorney

SANTA FE IRRIGATION DISTRICT

Dated: Sept 29, 1997

By: 
Its:

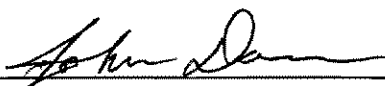
I hereby approved the form and legality of this Agreement this 29th day of Sept, 1997.

By: 
C. Michael Cowart, General Counsel for
Santa Fe Irrigation District

Appendix G: Lake Hodges Water Agreement

SAN DIEGUITO WATER DISTRICT

Dated: 10/08/97


By: John Davis
Its: Board President

I hereby approved the form and legality of this Agreement this 8th day of October, 1997.



By: Roger W. Krauel, Attorney for
San Dieguito Water District

EXHIBIT "A"

1. Lake Hodges Flume Weir

The Weir is located within a small block structure constructed at the easterly end of the "Lake Hodges Canal" commencing in the Southeast Quarter (SE 1/4) of the Northwest Quarter of Section 18, Township 13 South, Range 2 West of the subdivision of Rancho Santa Fe as per map thereof filed in the office of the County Recorder of San Diego County, California, on December 28, 1922, and numbered 1742.

2. Flow Control Facility

The Flow Control Facility known as San Diego County Water Authority's SD/SF 3 & 4 is located on property described as follows:

ALL THAT PORTION OF THE SOUTHEAST QUARTER OF SECTION 10, TOWNSHIP 13 SOUTH, RANGE 3 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY APPROVED NOVEMBER 19, 1880, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTH QUARTER CORNER OF SAID SECTION 10, THENCE SOUTH $89^{\circ}24'44''$ EAST 965.84 FEET ALONG THE SOUTH LINE OF SAID SECTION 10, (RECORD S $89^{\circ}49'57''$ E 936.97') TO THE CENTERLINE OF THE FIRST PIPELINE OF THE SECOND SAN DIEGO AQUEDUCT, THENCE CONTINUING ALONG THE SOUTH LINE OF SAID SECTION 10, SOUTH $89^{\circ}24'44''$ EAST 16.27' TO THE EASTERLY LINE OF THE SAN DIEGO COUNTY WATER AUTHORITY RIGHT OF WAY AS GRANTED IN FILE/PAGE NO. 25440, RECORDED FEBRUARY 8, 1960 IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, THENCE NORTH $22^{\circ}10'50''$ WEST (RECORD N $22^{\circ}10'37''$ W) 344.32 FEET ALONG SAID EASTERLY SAN DIEGO COUNTY WATER AUTHORITY RIGHT OF WAY LINE TO THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID EASTERLY SAN DIEGO COUNTY WATER AUTHORITY RIGHT OF WAY LINE, NORTH $67^{\circ}49'10''$ EAST, 65.00 FEET; THENCE SOUTH $22^{\circ}10'50''$ EAST, 78.00 FEET; THENCE SOUTH $00^{\circ}04'16''$ EAST 34.54 FEET; THENCE SOUTH $67^{\circ}49'10''$ WEST, 52.00 FEET TO SAID EASTERLY SAN DIEGO COUNTY WATER AUTHORITY RIGHT OF WAY LINE; THENCE ALONG SAID SAN DIEGO COUNTY WATER AUTHORITY RIGHT OF WAY LINE, NORTH $22^{\circ}10'50''$ WEST, 110.00 FEET TO THE TRUE POINT OF BEGINNING.

EXHIBIT B

**POST LAKE HODGES IMPROVEMENT PROJECT
SYSTEM OF ENTITLEMENTS AND CREDITS
(AGREEMENT § 4H)**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Local Water	11,400	11,400	13,400	11,400	10,400	10,400	10,400	10,400	11,400	11,400	11,400
Districts' Entitlement	5,700	5,700	5,700	6,700	5,700	5,200	5,200	5,200	5,200	5,700	5,700
Districts' Purchase	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,200	5,700
Credit	0	0	0	1000*	1000*	(500)	(500)	(500)	(500)	500 ✓	0
Credit Balance	0	0	0	1,000*	1,000*	500* ✓	0 ✓	(500)* ✓	(1000)* ✓	(500)* ² ✓	(500)* ² ✓

* To be reduced by evaporative losses (§ 4(H))

+ San Diego buys 500 acre feet of water at "Local Water Prices" from Districts

(O-98-84)

ORDINANCE NUMBER O- 18474 (NEW SERIES)

ADOPTED ON MAR 17 1998

AN ORDINANCE OF THE COUNCIL OF THE CITY OF SAN
DIEGO AUTHORIZING THE CITY MANAGER TO EXECUTE
AN AGREEMENT WITH SANTA FE IRRIGATION DISTRICT
AND SAN DIEGUITO WATER DISTRICT RESTATING
RIGHTS CONCERNING LOCAL WATER IN LAKE HODGES.

BE IT ORDAINED, by the Council of The City of San Diego, as follows:

Section 1. That the City Manager is hereby authorized to execute, for and on behalf of
The City of San Diego, an agreement with the Santa Fe Irrigation District and San Dieguito
Water District restating rights concerning local water in Lake Hodges.

Section 2. That this ordinance shall take effect and be in force on the thirtieth day from
and after its passage.

APPROVED: CASEY GWINN, City Attorney

By Kelly J. Salt
Kelly J. Salt
Deputy City Attorney

KJS:pev
2/5/98
Or.Dept:Wtr.
Aud.Cert:N/A
O-98-84
Form=o&t.frm

Appendix G: Lake Hodges Water Agreement

Passed and adopted by the Council of The City of San Diego on
MAR 17 1998 by the following vote:

YEAS: MATHIS, WEAR, KEHOE, STEVENS, WARDEN, STALLINGS,
MCCARTY, VARGAS, MAYOR GOLDING

NAYS: NONE

NOT PRESENT: NONE

AUTHENTICATED BY:

SUSAN GOLDING
Mayor of The City of San Diego, California

CHARLES G. ABDELNOUR
City Clerk of The City of San Diego, California

(Seal)

By: Lori A. Witzel, Deputy

I HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of ORDINANCE NO. O- 18474 (New Series) of The City of San Diego, California.

I FURTHER CERTIFY that said ordinance was not finally passed until twelve calendar days had elapsed between the day of its introduction and the day of its final passage, to wit, on FEB 17 1998 and on MAR 17 1998.

I FURTHER CERTIFY that the reading of said ordinance in full was dispensed with by a vote of not less than a majority of the members elected to the Council, and that there was available for the consideration of each member of the Council and the public prior to the day of its passage a written or printed copy of said ordinance.

CHARLES G. ABDELNOUR
City Clerk of The City of San Diego, California

(Seal)

By: Lori A. Witzel, Deputy

Appendix H

Article 17, Drought Response Policies and Procedures

ARTICLE 17. - DROUGHT RESPONSE POLICIES AND PROCEDURES

SEC. 17.1 DECLARATION OF POLICIES

Article 10, section 2 of the California Constitution declares that the water resources of the State are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for the public welfare. Conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety, and welfare.

Regulation of the time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation and use of water-saving devices, provide an effective and immediately available means of conserving water. California Water Code sections 375 et seq. authorize water suppliers to adopt and enforce a comprehensive water conservation program.

Adoption and enforcement of Drought Response Policies and Procedures will allow the Santa Fe Irrigation District to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.

San Diego County is a semi-arid region and local water resources are scarce. The region is dependent upon imported water supplies provided by the San Diego County Water Authority, which obtains a substantial portion of its supplies from the Metropolitan Water District of Southern California. Because the region is dependent upon imported water supplies, weather and other conditions in other portions of this State and of the Southwestern United States affect the availability of water for use in San Diego County.

The San Diego County Water Authority has adopted an Urban Water Management Plan (UWMP) that includes water conservation as a necessary and effective component of the Water Authority's programs to provide a reliable supply of water to meet the needs of the Water Authority's 24 member public agencies, including the Santa Fe Irrigation District. The Water Authority's UWMP also includes a contingency analysis of actions to be taken in response to water supply shortages. These Policies and Procedures are consistent with the San Diego County Water Authority's UWMP.

As anticipated by its UWMP, the San Diego County Water Authority, in cooperation and consultation with its member public agencies, has adopted a Drought Management Plan (DMP), which establishes a progressive program for responding to water supply limitations resulting from drought conditions. These Policies and Procedures are intended to be consistent with and to implement the San Diego County Water Authority's DMP.

The San Diego County Water Authority's DMP has three stages containing regional actions to be taken to lessen or avoid supply shortages. These Policies and Procedures contain drought

response levels that correspond with the DMP stages.

The Santa Fe Irrigation District, due to the geographic and climatic conditions within its territory and its dependence upon water imported and provided by the San Diego County Water Authority, may experience shortages due to drought conditions, regulatory restrictions enacted upon imported supplies and other factors. The Santa Fe Irrigation District has adopted an UWMP that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. The Santa Fe Irrigation District UWMP also includes a contingency analysis of actions to be taken in response to water supply shortages. These Policies and Procedures are consistent with the UWMP adopted by the Santa Fe Irrigation District.

The water conservation measures and progressive restrictions on water use and method of use identified by these Policies and Procedures provide certainty to water users and enable Santa Fe Irrigation District to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public.

SEC. 17.2 DECLARATION OF NECESSITY AND INTENT

The Santa Fe Irrigation District in this Declaration of Necessity and Intent finds and determines the following:

Sec. 17.2.1.

These Policies and Procedures establish water management requirements necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water, prevent unreasonable method of use of water within the Santa Fe Irrigation District in order to assure adequate supplies of water to meet the needs of the public, and further the public health, safety, and welfare, recognizing that water is a scarce natural resource that requires careful management not only in times of drought, but at all times.

Sec. 17.2.2

These Policies and Procedures establish regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of drought response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies.

Sec. 17.2.3

Level 1 condition drought response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by Santa Fe Irrigation District. During drought response condition Levels 2 through 4, all conservation measures and water-use restrictions are mandatory and become increasingly restrictive in order to attain escalating conservation goals.

Sec. 17.2.4

During a Drought Response Level 2 condition or higher, the water conservation measures and water use restrictions established by these Policies and Procedures are mandatory and violations are subject to criminal, civil, and administrative penalties and remedies specified in these Policies and Procedures.

SEC. 17.3 DEFINITIONS

The following words and phrases whenever used in these Policies and Procedures shall have the meaning defined in this section:

Sec. 17.3.1

“Grower” refers to those engaged in the growing or raising, in conformity with recognized practices of husbandry, for the purpose of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural, or floricultural products, and produce: (1) for human consumption or for the market; or (2) for the feeding of fowl or livestock produced for human consumption or for the market; or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market. “Grower” does not refer to customers who purchase water subject to the Metropolitan Interim Agricultural Water Program or the San Diego County Water Authority Special Agricultural Rate programs.

Sec. 17.3.2

“Water Authority” means the San Diego County Water Authority.

Sec. 17.3.3

“DMP” means the Water Authority’s Drought Management Plan in existence on the effective date of these Policies and Procedures and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

Sec. 17.3.4

“General Manager” means the Santa Fe Irrigation District’s General Manager or the general manager’s designee.

Sec. 17.3.5

“Metropolitan” means the Metropolitan Water District of Southern California.

Sec. 17.3.6

“Person” means any natural person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, university, or any other user of water provided by the Santa Fe Irrigation District.

Sec. 17.3.7

“Water shortage emergency” means a condition existing within the District in which the ordinary water demands and requirements of persons within the District cannot be satisfied without depleting the water supply of the District to the extent that there would be insufficient water for

human consumption, sanitation, and fire protection. A water shortage emergency includes both an immediate emergency, in which the District is unable to meet current water needs of persons within the District, as well as a threatened water shortage, in which the District determines that its supply cannot meet an increased future demand.

SEC. 17.4 APPLICATION

Sec. 17.4.1

The provisions of these Policies and Procedures apply to any person in the use of any water provided by the Santa Fe Irrigation District.

Sec. 17.4.2

These Policies and Procedures are intended solely to further the conservation of water. It is not intended to implement any provision of federal, state, or local statutes, resolutions, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any stormwater resolutions and stormwater management plans.

Sec. 17.4.3

Nothing in these Policies and Procedures is intended to affect or limit the ability of the Santa Fe Irrigation District to declare and respond to an emergency, including an emergency that affects the ability of the Santa Fe Irrigation District to supply water.

Sec. 17.4.4

The provisions of these Policies and Procedures do not apply to the use of water from private wells or recycled water.

Sec. 17.4.5

Nothing in these Policies and Procedures shall apply to use of water that is subject to a special supply program, such as the Metropolitan Interim Agricultural Water program or the Water Authority Special Agricultural Rate programs. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program. A person using water subject to a special supply program and other water provided by the Santa Fe Irrigation District is subject to these Policies and Procedures in the use of the other water.

SEC. 17.5 DROUGHT RESPONSE LEVEL 1

Sec. 17.5.1

A Drought Response Level 1 condition may apply when the Water Authority notifies its member agencies that due to drought or other water supply reductions, there is a reasonable probability there will be water supply shortages and that a consumer demand reduction of up to 10 percent is required in order to ensure that water sufficient supplies will be available to meet anticipated demands. The General Manager shall declare the existence of a Drought Response Level 1 and take action to implement the Level 1 water conservation measures identified in these Policies and Procedures.

Appendix H: Article 17, Drought Response Policies and Procedures

During a Level 1 condition, Santa Fe Irrigation District will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation measures:

- a) Stop washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.
- b) Stop water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
- c) Irrigate residential and commercial landscape before 8 a.m. and after 6 p.m. only.
- d) Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.
- e) Irrigate nursery and commercial grower's products before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.
- f) Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that recirculates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.
- g) Serve and refill water in restaurants and other food service establishments only upon request.
- h) Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.
- i) Repair all water leaks within five (5) days of notification by the Santa Fe Irrigation District unless other arrangements are made with the General Manager.
- j) Use recycled or non-potable water for construction purposes when available.

Sec. 17.5.2

During a Drought Response Level 2 condition or higher, all persons shall be required to implement the water conservation measures established in a Drought Response Level 1 condition.

Sec. 17.6 DROUGHT RESPONSE LEVEL 2

Sec. 17.6.1

A Drought Response Level 2 condition may apply when the Water Authority notifies its member agencies that due to cutbacks caused by drought or other reduction in water supplies, a consumer demand reduction of up to 20 percent is required in order to have sufficient water supplies available to meet anticipated demands. The Santa Fe Irrigation District Board of Directors shall declare the existence of a Drought Response Level 2 condition and implement the mandatory Level 2 water conservation measures identified in these Policies and Procedures.

Sec. 17.6.2

All persons using Santa Fe Irrigation District water shall comply with Level 1 water conservation measures during a Drought Response Level 2 condition, and shall also comply with the following additional conservation measures:

- a) Limit residential and commercial landscape irrigation to assigned days per week on a schedule established by the General Manager and posted by the District.
- b) Limit lawn watering and landscape irrigation using sprinklers to time limits per watering station per assigned day as established by the General Manager and posted by the District. This provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems and stream rotor sprinklers.
- c) Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 17.6.2.a, on the same schedule set forth in section 17.6.2.a by using a bucket, hand-held hose with positive shut-off nozzle, or a drip/micro-irrigation system/equipment.
- d) Repair all leaks within seventy-two (72) hours of notification by the Santa Fe Irrigation District unless other arrangements are made with the General Manager.

Sec. 17.6.3

If the District Board of Directors declares a water shortage emergency during a Drought Response Level 2 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, and no statements of immediate ability to serve or provide potable water service (such as will serve letters, certificates, or letters of availability) shall be issued, except under the following circumstances:

- a) A valid, unexpired building permit has been issued for the project; or
- b) The project is necessary to protect the public's health, safety, and welfare; or
- c) The applicant provides substantial evidence of an enforceable commitment that water

demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of Santa Fe Irrigation District.

This Section 17.6.3 shall not be construed to preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.

SEC. 17.7 DROUGHT RESPONSE LEVEL 3

Sec. 17.7.1

A Drought Response Level 3 condition may apply when the Water Authority notifies its member agencies that, due to increasing cutbacks caused by drought or other reduction of water supplies a consumer demand reduction of up to 40 percent is required, in order to have sufficient supplies available to meet anticipated water demands. The Santa Fe Irrigation District Board of Directors shall declare the existence of a Drought Response Level 3 condition, and shall declare a water shortage emergency, upon adopting findings supporting a water shortage emergency, pursuant to California Water Code section 350 et seq., and shall implement the Level 3 water conservation measures identified in these Policies and Procedures.

Sec. 17.7.2

All persons using Santa Fe Irrigation District water shall comply with Drought Response Level 1 and Level 2 water conservation measures during a Drought Response Level 3 condition and shall also comply with the following additional mandatory conservation measures:

- a) Limit residential and commercial landscape irrigation to assigned days per week on a schedule established by the General Manager and posted by the District.
- b) Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section 17.7.2.a, on the same schedule set forth in Section 17.7.2.a, by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.
- c) Stop operating ornamental fountains or decorative water features which discharge into the air a spray, mist, jet or stream of water. These type of fountains and water features may be operated on a limited basis for maintenance purposes only. All water features that have flowing or cascading water, whether decorative or otherwise, shall be maintained so as to prevent leaking and may only be refilled to replace normal evaporation. Fountains and water features that do not use re-circulated water are prohibited.
- d) Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.
- e) Repair all leaks within forty-eight (48) hours of notification by the Santa Fe Irrigation District unless other arrangements are made with the General Manager.

Sec. 17.7.3

Upon the declaration of a Drought Response Level 3 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, and no statements of immediate ability to serve or provide potable water service (such as will serve letters, certificates, or letters of availability) shall be issued, except under the following circumstances:

- a) A valid, unexpired building permit has been issued for the project; or
- b) The project is necessary to protect the public's health, safety, and welfare; or
- c) The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of Santa Fe Irrigation District.

This Section 17.7.3 shall not be construed to preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.

Sec. 17.7.4

Upon the declaration of a Drought Response Level 3 condition, Santa Fe Irrigation District will suspend consideration of annexations to its service area.

Sec. 17.7.5

The Santa Fe Irrigation District may establish a water allocation for property served by the Santa Fe Irrigation District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If the Santa Fe Irrigation District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the Santa Fe Irrigation District, any person that uses water in excess of the allocation shall be subject to a penalty for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of these Policies and Procedures. The Santa Fe Irrigation District Board of Directors, by resolution, shall establish the amount of the penalty in accordance with applicable law.

SEC. 17.8 DROUGHT RESPONSE LEVEL 4

Sec. 17.8.1

A Drought Response Level 4 condition may apply when the Water Authority Board of Directors declares a water shortage emergency pursuant to California Water Code section 350 et seq. and notifies its member agencies that Level 4 requires a demand reduction of more than 40 percent in order for the Santa Fe Irrigation District to have maximum water supplies available to meet

anticipated water demands. The Santa Fe Irrigation District Board of Directors shall declare a water shortage emergency, upon adopting findings supporting a water shortage emergency, pursuant to California Water Code section 350 et seq., and shall implement the Level 4 water conservation measures identified in these Policies and Procedures.

Sec. 17.8.2

All persons using Santa Fe Irrigation District water shall comply with conservation measures required during Drought Response Level 1, Level 2, and Level 3 conditions and shall also comply with the following additional mandatory water conservation measures:

Sec. 17.8.2.1

Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless the Santa Fe Irrigation District has determined that recycled water is available and may be lawfully applied to the use.

- a) Maintenance of trees and shrubs that are watered on the same schedule set forth in section 17.7.2.a, by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.
- b) Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated.
- c) Maintenance of existing landscaping for erosion control.
- d) Maintenance of plant materials identified to be rare or essential to the well being of rare animals.
- e) Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under Section 17.7.2.a.
- f) Watering of livestock.
- g) Public works projects and actively irrigated environmental mitigation projects.

Sec. 17.8.2.2

Repair all water leaks within twenty-four (24) hours of notification by the Santa Fe Irrigation District unless other arrangements are made with the General Manager.

Sec. 17.8.3

The Santa Fe Irrigation District may establish a water allocation for property served by the Santa Fe Irrigation District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If the Santa

Fe Irrigation District establishes a water allocation it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the Santa Fe Irrigation District, any person that uses water in excess of the allocation shall be subject to a penalty for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of these Policies and Procedures. The Santa Fe Irrigation District Board of Directors, by resolution, shall establish the amount of the penalty in accordance with applicable law.

SEC. 17.9 CORRELATION BETWEEN DROUGHT MANAGEMENT PLAN AND DROUGHT RESPONSE LEVELS

Sec. 17.9.1

The correlation between the Water Authority's DMP stages and the Santa Fe Irrigation District's drought response levels identified in these Policies and Procedures is described herein. Under DMP Stage 1, the Santa Fe Irrigation District will implement Drought Response Level 1 actions. Under DMP Stage 2, the Santa Fe Irrigation District will implement Drought Response Level 1 or Level 2 actions. Under DMP Stage 3, the Santa Fe Irrigation District will implement Drought Response Level 2, Level 3, or Level 4 actions.

Sec. 17.9.2

The drought response levels identified in these Policies and Procedures correspond with the Water Authority DMP as identified in the following table:

Drought Response Levels	Conservation Measures	Conservation Target	Water Allocations	DMP Stage
1	Voluntary	Up to 10%	No	Stage 1 or 2
2	Mandatory	Up to 20%	No	Stage 2 or 3
3	Mandatory	Up to 40%	Possible	Stage 3
4	Mandatory	Above 40%	Yes	Stage 3

SECTION 17.10 PROCEDURES FOR DETERMINATION AND NOTICATION OF DROUGHT RESPONSE LEVEL

Sec. 17.10.1

The existence of a Drought Response Level 1 condition may be declared by the General Manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be filed with the Clerk or Secretary of the Santa Fe Irrigation District and provided to the Santa Fe Irrigation District Board of Directors. The General Manager may publish a notice of the determination of existence of Drought Response Level 1 condition in one or more newspapers, including a

newspaper of general circulation within the Santa Fe Irrigation District. The Santa Fe Irrigation District may also post notice of the condition on their website.

Sec. 17.10.2

The existence of Drought Response Level 2 conditions may be declared by a resolution of the Santa Fe Irrigation District Board of Directors, adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation measures applicable to Drought Response Level 2 conditions shall take effect on the tenth (10) business day after the date the response level is declared. Within five (5) business days following the declaration of the response level, the Santa Fe Irrigation District shall publish a copy of the resolution in a newspaper used for publication of official notices.

Sec. 17.10.3

The existence of a Drought Response Level 3 or Level 4 condition may be declared in accordance with the procedures specified in California Water Code sections 351 and 352. The mandatory conservation measures applicable to Drought Response Level 3 or Level 4 conditions shall take effect on the tenth business day after the date the response level is declared. Within five (5) business days following the declaration of the response level, the Santa Fe Irrigation District shall publish a copy of the resolution in a newspaper used for publication of official notices. If the Santa Fe Irrigation District establishes a water allocation, it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the Santa Fe Irrigation District customarily mails the billing statement for fees or charges for on-going water service. Water allocation shall be effective on the fifth business day following the date of mailing or at such later date as specified in the notice.

Sec. 17.10.4

Notwithstanding anything herein to the contrary, the District, or the General Manager as authorized herein, may declare any Drought Response Level as set forth in Article 17 when it determines under the then existing facts and circumstances that it is necessary to implement the specific water conservation measures of such Drought Response Level in order to protect the water supplies of the District.

Sec. 17.10.5

The Santa Fe Irrigation District Board of Directors may declare an end to a Drought Response Level by the adoption of a resolution at any regular or special meeting held in accordance with State law.

SECTION 17.11 HARDSHIP VARIANCE

Sec. 17.11.1

If, due to unique circumstances, a specific requirement of these Policies and Procedures would result in undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to Santa Fe Irrigation District water users

generally or to similar property or classes of water uses, then the person may apply for a variance to the requirements as provided in this section.

Sec. 17.11.2

The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to Santa Fe Irrigation District water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

Sec. 17.11.3

Application. Application for a variance shall be a form prescribed by Santa Fe Irrigation District and shall be accompanied by a non-refundable processing fee in an amount set by resolution of the Santa Fe Irrigation District Board of Directors.

Sec. 17.11.4

Supporting Documentation. The application shall be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

Sec. 17.11.5

Required Findings for Variance. An application for a variance shall be denied unless the approving authority finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the Santa Fe Irrigation District, all of the following:

- a) That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other Santa Fe Irrigation District customers.
- b) That because of special circumstances applicable to the property or its use, the strict application of these Policies and Procedures would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.
- c) That the authorization of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the Santa Fe Irrigation District to effectuate the purpose of these Policies and Procedures and will not be detrimental to the public interest.
- d) That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent or general in nature.
- e) That because the subject property had been destroyed by a natural disaster, either entirely, or partially.

Sec. 17.11.6

Approval Authority. The General Manager shall exercise approval authority and act upon any completed application no later than ten (10) business days after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the mandatory drought response level then in effect.

Sec. 17.11.7

Appeals to Santa Fe Irrigation District Board of Directors. An applicant may appeal a decision or condition of the General Manager on a variance application to the Santa Fe Irrigation District Board of Directors. Any such appeal must be submitted in writing within ten (10) business days of the General Manager's decision. The written request shall state the grounds for the appeal. At a public meeting, the Santa Fe Irrigation District Board of Directors shall act as the approval authority and review the appeal. The decision of the Santa Fe Irrigation District Board of Directors is final.

SECTION 17.12 VIOLATIONS AND PENALTIES

Sec. 17.12.1

Any person, who uses, causes to be used, or permits the use of water in violation of these Policies and Procedures is guilty of an offense punishable as provided herein.

Sec. 17.12.2

Each day that a violation of these Policies and Procedures occurs is a separate offense.

Sec. 17.12.3

A first violation of the water conservation measures set forth in these Policies and Procedures, and reported to the District, will result in a letter generated by the Customer Services department, notifying the customer of the violation with a copy of the Santa Fe Irrigation District Drought Response Policies and Procedures. The violation and notification will be recorded on that customer account.

Sec. 17.12.4

Administrative fines may be levied for each violation of a provision of these Policies and Procedures and as follows:

- a) One hundred dollars for a second violation.
- b) Two hundred dollars for a third violation of any provision of these Policies and Procedures within one year.
- c) Five hundred dollars for each additional violation of these Policies and Procedures

within one year.

Sec. 17.12.5

Violation of a provision of these Policies and Procedures is subject to enforcement through installation of a flow-restricting device in the meter.

Sec. 17.12.6

Each violation of these Policies and Procedures may be prosecuted as a misdemeanor, punishable by imprisonment in the county jail for not more than thirty (30) days or by a fine not exceeding \$1,000, or by both as provided in California Water Code section 377.

Sec. 17.12.7

Willful violations of the mandatory conservation measures and water use restrictions as set forth in the Drought Response Policies and Procedures may be enforced by discontinuing service to the property at which the violation occurs as provided by California Water Code section 356.

Sec. 17.12.8

All remedies provided for herein shall be cumulative and not exclusive.

SECTION 17.13 NOTICES

Sec. 17.13.1

Any notice or notice of violation shall be served pursuant to the requirements of these Policies and Procedures and shall:

- a) identify the provision(s) of these Policies and Procedures and any State law, if applicable, alleged to have been violated; and
- b) state that continued noncompliance may result in civil, criminal, or administrative enforcement actions against the person who committed the violation, or the property owner and/or occupant of the property where the violation occurred; and
- c) state a compliance date that must be met by the person who committed the violation, or the property owner and/or occupant of the property where the violation occurred; and
- d) order remediation work, where applicable, that must be taken by the property owner and/or occupant of the property; and
- e) state that the recipient has a right to appeal the matter as set forth in these Policies and Procedures; and
- f) include the address of the affected property and be addressed to the property owner as shown on the most recently issued equalized assessment roll or as may otherwise appear

Appendix H: Article 17, Drought Response Policies and Procedures

in the current records of the Santa Fe Irrigation District. If the order applies to a responsible party who is not the property owner, or if the event is not related to a specific property, the notice may be sent to the last known address of the responsible party; and

- g) be deemed served ten (10) business days after posting on the property, if the property owner or occupant of the affected property cannot be located after the reasonable efforts of the General Manager.

Sec. 17.13.2

Any notice or notice of violation may be sent by regular mail. Service by regular mail is effective on the date of mailing.

The notice of violation may include, where deemed applicable by the General Manager, the following terms and conditions:

- a) specific steps or actions and time schedules for compliance as reasonably necessary to prevent future violations of these Policies and Procedures; and
- b) any other terms, conditions, or requirements reasonably calculated to prevent continued or threatened future violations of these Policies and Procedures, including, but not limited to, discontinuing or limiting water service with the installation of a flow restricting device.

Sec. 17.13.3

In addition to or in conjunction with the notice of violation, for a first violation of any provision of these Policies and Procedures, within two (2) weeks of the violation:

- a) the Santa Fe Irrigation District may provide notice to the property owner or occupant of the property where the violation occurred to advise such person of:
 - 1. the drought response level then in effect and the provisions of these Policies and Procedures relating thereto;
 - 2. water conservation and drought response measures that are required and may be implemented pursuant to these Policies and Procedures;
 - 3. possible consequences and actions which may be taken by the Santa Fe Irrigation District for future violations of these Policies and Procedures, including discontinuance of water service;
 - 4. penalties that may be imposed for the specific violation and any future violations of these Policies and Procedures; and
- b) if the General Manager deems it to be appropriate, the Santa Fe Irrigation District may order the installation of a flow-restricting device on the service line for any person who violates any term or provision of these Policies and Procedures.

Sec. 17.13.4

In addition to or in conjunction with the notice of violation, for a second or any subsequent violation of these Policies and Procedures, within two (2) weeks of the violation:

- a) the Santa Fe Irrigation District may provide notice to the property where the violation occurred to notify the property owner or occupant of the property where the violation occurred to advise such person of:
 1. the drought response level then in effect and the provisions of these Policies and Procedures relating thereto;
 2. the water conservation and drought response measures that are required and may be implemented by such person;
 3. possible consequences which may occur in the event of any future violations of these Policies and Procedures; and
- b) if the General Manager deems it to be appropriate, the Santa Fe Irrigation District may order the installation of a flow-restricting device on the service line for any person who violates any term or provision of these Policies and Procedures; and
- c) if the General Manager deems it to be appropriate, the Santa Fe Irrigation District may discontinue water service at the location where the violation occurred.

Sec. 17.13.5

Santa Fe Irrigation District may, after one (1) written notice of violation, order that a special meter reading or readings be made in order to ascertain whether wasteful or unreasonable use of water is occurring. The District may impose a meter reading fee for each meter reading it conducts pursuant to these Policies and Procedures.

SECTION 17.14 RECOVERY OF COSTS

Sec. 17.14.1

The General Manager shall serve an invoice for costs upon the property owner and/or occupant of any property, or any other responsible person who is subject to a notice of violation. An invoice for costs shall be immediately due and payable to the Santa Fe Irrigation District. If any property owner or person fails to either pay the invoice for costs or appeal successfully the invoice for costs in accordance with these Policies and Procedures, then the Santa Fe Irrigation District may institute collection proceedings. The invoice for costs may include reasonable attorneys' fees.

- a) The Santa Fe Irrigation District may impose any other penalties or regulatory fees, as fixed from time to time by the Board of Directors, for a violation or enforcement of these Policies and Procedures.
 1. In order to recover the costs of the water conservation regulatory program set

forth in these Policies and Procedures, the Board of Directors may, from time to time, fix and impose fees and charges. The Santa Fe Irrigation District fees and charges may include, but are not limited to fees and charges for:

- a. any visits of a enforcement officer or other Santa Fe Irrigation District staff for time incurred for meter reading, follow-up visits, or the installation or removal of a flow-restricting device;
- b. monitoring, inspection, and surveillance procedures pertaining to enforcement of these Policies and Procedures;
- c. enforcing compliance with any term or provision of these Policies and Procedures;
- d. reinitiating service at a property where service has been discontinued pursuant to these Policies and Procedures;
- e. processing any fees necessary to carry out the provisions of these Policies and Procedures.

SECTION 17.15 APPEALS

Any person subject to a notice of violation, or notice of allocation of water, may file an appeal of such order or allocation designation with the Board of Directors within fifteen (15) calendar days of the date of service of the notice. The Board of Directors shall hold a hearing to consider the appeal at the next available District meeting. A notice of the hearing shall be mailed to the appellant at least ten (10) calendar days before the date fixed for the hearing. The Board of Directors shall review the appeal. The determination of the Board of Directors shall be conclusive and shall constitute a final order. Notice of the determination by the Board of Directors shall be mailed to the appellant within ten (10) calendar days of such determination and shall indicate whether the appeal has been granted in whole or in part and set forth the terms and conditions of the decision, if any. If the appeal is denied, the appellant shall comply with all terms and conditions of the order or notice.

SECTION 17.16 SEVERABILITY

If any provision, section, subsection, sentence, clause or phrase or sections of these Policies and Procedures, or the application of same to any person or set of circumstances, is for any reason held to be unconstitutional, void or invalid, the invalidity of the remaining portions of sections of this ordinance shall not be affected, it being the intent of the Board of Directors in adopting these Policies and Procedures that no portions, provisions, or regulations contained herein shall become inoperative, or fail by reason of the unconstitutionality of any other provision hereof, and all provisions of these Policies and Procedures are declared to be severable for that purpose.

SECTION 17.17 EFFECTIVE DATE

These Policies and Procedures are effective immediately upon adoption or as otherwise established by state law for the Santa Fe Irrigation District.

Appendix I

Emergency Interconnections

Appendix I: Emergency Interconnections

Emergency Exchange Connections Matrix Metered and Unmetered

SFID - OMWD Connections	
Metered Highland—San Mario Via De La Valle—Polo Field Homes (2 connections) Via De La Valley—Las Palomas Calle Mayor—Circa Del Norte Circa Oriente—Circa Del Sur	Unmetered El Camino Del Norte Via de Santa Fe (2 connections) El Camino Real—La Orilla Santa Victoria—Santa Luia
SFID – San Diego/Del Mar Connections	
Metered Valley Ave—Via De La Valle	Unmetered
SFID - City of San Diego Connections	
Metered San Andres—Tercer Verde Caminito Daniella—Vista De La Tierra	Unmetered
SFID By-Pass Valves	
Metered	Unmetered La Gracia—Via De Alba Santa Helena Park Court

Appendix J

2009-2010 Annual Report and BMP Coverage Report

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:

Agency name: Santa Fe Irrigation District

First name: Jessica

Reporting unit name

(District name) Santa Fe Irrigation District

Last name: Parks

Reporting unit number:

202

Email: jparks@sfidwater.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



Base Year Data

[Link to FAQs](#)

Reporting Unit Base Year

Base Year: 2008

What is your reporting period? Fiscal

BMP 1.3 Metering

Number of unmetered accounts in Base Year: 0

BMP 3.1 & BMP 3.2 & BMP 3.3 Residential Programs

Number of Single Family Customers in Base Year: 16,768

Number of Multi Family Units in Base Year: 2,488

BMP 3.4 WaterSense Specification (WSS) Toilets

Number of Single Family Housing Units constructed prior to 1992: 6130

Number of Multi Family Units prior to 1992: 2155

Average number of toilets per single family household: 2.77

Average number of toilets per multi family household: 1.47

Five year average resale rate of single family households:

Five-year average resale rate of multi family households:

Average number of persons per single family household: 2.67

Average number of persons per multi family household: 1.84

BMP 4.0 & BMP 5.0 CII & Landscape

Total water use (in Acre Feet) by CII accounts: 724

Number of accounts with dedicated irrigation meters: 137

Number of CII accounts without meters or with Mixed Use Meters: 155

Number of CII accounts: 385

Comments:

Our Agency is unable to obtain information on the five year average resale rate of SF & MF households. We had asked multiple associations and organizations such as; San Diego Association of Governments (SANDAG), North San Diego Association of Realtors (NSDAR), City of Solana Beach, and County of San Diego Assessors Office. Each of the listed were unable to provide us with the requested information.

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:

Agency name: First name:
 Division name (Reporting unit): Last name:
 Reporting unit number: Email:



WATER SOURCES

Service Area Population:

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Lake Hodges	4,708.00	Surface	Local Surface Water
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
SDCWA Imported Water	8,084.00	Other	Imported
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Exported Water Name	AF/YEAR	Where Exported?

2009

The fields in red are required.

Agency name:

Santa Fe Irrigation District

First name:

Jessica

Division name
(Reporting unit)

Santa Fe Irrigation District

Last name:

Reporting unit number: 202

202

Email: jparks@sfidwater.org



Service Area Population: 19195

19195

If you select Other for type, enter

[illegible]

The fields in red are required.

Primary contact:

Agency name: Santa Fe Irrigation District

First name:



Division name
(Reporting unit) Santa Fe Irrigation District

Last name: Parks

Reporting unit number: 202

Email: jparks@sfidwater.org

Water Uses 2009

Potable Water Billed

Make sure to enter numbers in AF/Year.

[illegible]

Potable Water Un-Billed

[illegible]

The fields in red are required.

Agency name:

First name:

Jessica



Santa Fe Irrigation District

Last name: Parks

Reporting unit number: 202

Email: jparks@sfidwater.org

2009

[illegible][illegible]

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:



Agency name: Santa Fe Irrigation District

First name: Jessica

Reporting unit name

(District name) Santa Fe Irrigation District

Last name: Parks

Reporting unit number: 202

Email: jparks@sfdwater.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[See the complete MOU:](#) [View MOU](#)

[See the coverage requirements for this BMP:](#)

2009

BMP 1.1 Operations Practices

Comments:

Conservation Coordinator

Conservation Coordinator ☒ Yes ☐ No

Contact Information

First Name: Michael

Last Name: Banks

Title: Conservation Specialist

Phone: 858-756-2424

Email: mbanks@sfdwater.org

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

- Enact and enforce an ordinance or establish terms of service that prohibit water waste
- Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- Support legislation or regulations that prohibit water waste
- Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- Support local ordinances that prohibit water waste
- Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

- A description of, or electronic link to, any ordinances or terms of service
- A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
- description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

<http://www.sfdwater.org/docs/Drought%20Policies%20&%20Procedures%20Art.17%20Oct09%20.pdf>,

Enter a description:

Description of Water Conservation Specialist: <http://www.sfdwater.org/docs/Water%20Conservation%20Technician%20Jan%202010.pdf>



Agency name: Santa Fe Irrigation District First name: Jessica
 Reporting unit name (District name): Santa Fe Irrigation District Last name: Parks
 Reporting unit number: 202 Email: jparks@sfidwater.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)

2009 BMP 1.2 Water Loss Control

Did your agency complete a pre-screening system audit in 2009? Yes ☒ No ☐

If yes, answer the following:

Determine metered sales in AF: 13,015.60

Definition: other accountable uses not included in metered sales, such as unbilled water use, fire suppression, etc.

Determine system verifiable uses AF: 283.00

Determine total supply into the system in AF: 13,298.10

Does your agency keep necessary data on file to verify the answers above? Yes ☒ No ☐

Did your agency complete a full-scale system water audit during 2009? Yes ☐ No ☒

Does your agency maintain in-house records of audit results or the completed AWWA worksheet for the completed audit which could be forwarded to CUWCC? Yes ☒ No ☐

Did your agency operate a system leak detection program? Yes ☒ No ☐

Comments:

The fields in red are required.

Primary contact:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Agency name: **Appendix J: 2009-2010 Annual Report and BMP Coverage Report**
 Reporting unit name (District name): **Santa Fe Irrigation District**
 Reporting unit number: **202**
 Last name: **Parks**
 Email: **jparks@sfdwater.org**



BMP 1.3 Metering with Commodity

[Link to FAQs](#)

[See the complete MOU: View MOU](#)

[See the coverage requirements for this BMP:](#)

Implementation

Does your agency have any unmetered service connections? ☐ Yes ☒ No

If YES, has your agency completed a meter retrofit plan? ☐ Yes ☒ No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered? ☒ Yes ☐ No

Are all new service connections being billed volumetrically? ☒ Yes ☐ No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? ☐ Yes ☒ No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
Single-Family	5,446	5,446	5,446	Bi-monthly	32,676
Multi-Family	464	464	464	Bi-monthly	2,784
Commercial	315	315	315	Bi-monthly	1,890
Institutional	77	77	77	Bi-monthly	462
Dedicated Irrigation	136	136	136	Bi-monthly	816
Other	757	757	757	Bi-monthly	4,542
Other				Other	
Other				Other	
Other				Other	
Other				Other	

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? ☐ Yes ☒ No

If YES, please fill in the following information:

A. When was the Feasibility Study conducted

B. Email or provide a link to the feasibility study (or description of):

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

General Comments about BMP 1.3:

The fields in red are required.

Primary contact:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Agency name: Santa Fe Irrigation District

Primary contact: Jessica

Reporting unit name

(District name) Santa Fe Irrigation District

Last name: Parks

Reporting unit number: 202

Email: jparks@sfdwater.org



2009

BMP 1.4 Retail Conservation Pricing

[Link to FAQs](#)

[View MOU](#)

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue	Customer Meter/Service (Fixed Charges)
Increasing Block	Single-Family	10,298,176.01		1,704,436.62	
Uniform	Multi-Family	807,451.23		272,278.52	
Uniform	Commercial	497,165.36		140,274.13	
Uniform	Institutional	155,835.73		39,880.71	
Uniform	Dedicated Irrigation	844,074.42		105,907.44	
Uniform	Agricultural	85,300.26		10,910.04	
Uniform	Other	674,343.01		132,438.07	

Implementation Option (Conservation Pricing Option)

- ☒ Use Annual Revenue As Reported
☐ Use Canadian Water & Wastewater Association Rate Design Model

If CWWA is select, enter the file name and email the spreadsheet to natalie@cuwcc.org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service

☐ Yes ☒ No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue	Customer Meter/Service (Fixed Charges)
Select a Rate Struc	Other				
Select a Rate Struc	Other				
Select a Rate Struc	Other				
Select a Rate Struc	Other				
Select a Rate Struc	Other				
Select a Rate Struc	Other				
Select a Rate Struc	Other				

Comments:

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.



Agency name: Santa Fe Irrigation District

Reporting unit name

(District name)	Santa Fe Irrigation District
-----------------	------------------------------

Reporting unit number: 202

Primary contact:

First name: Jessica

Last name: Parks

Email: jparks@sfidwater.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2009

BMP 2.1 Public Outreach - Retail Reporting

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP?

☒ Yes ☐ No

Enter the name(s) of the wholesale agency (comma delimited)

San Diego County Water Authority, Metropolitan Water District

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Did at least one contact take place during each quarter of the reporting year?

Public Information Programs List

Number of Public Contacts	Public Information Programs
12	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
1	Newsletter articles on conservation
1	Website
6	Landscape water conservation media campaigns
	Select a public contact

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP?

☒ Yes ☐ No

Enter the name(s) of the wholesale agency (comma delimited)

San Diego County Water Authority, Metropolitan Water District

OR Retail Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year?

Media Contacts List

[illegible]

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP?

☐ Yes ☒ No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

<http://www.sfidwater.org>

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

Updated website home page bulletin, Posted updates to conservation page, Advertised District's update Drought Response Policies and Procedures, and posted conservation related flyers and brochures

Did at least one Website Update take place during each quarter of the reporting year?

☒ Yes ☐ No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or break the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments
Public Outreach	\$30,000		<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	

Comments:

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.



Agency name: Santa Fe Irrigation District

Reporting unit name

(District name) Santa Fe Irrigation District

Reporting unit number: 202

Primary contact:

First name: Jessica

Last name: Parks

Email: jparks@sfdwater.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2009

BMP 2.1 Public Outreach Cont'd

Public Outreach Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question related to your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Expense Category	Expense Amount	Personnel Costs Included?	
	\$32,799.72	<input type="checkbox"/>	If yes, check the check box.
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of how your agency views their importance / effectiveness with respect to conserving water, with the most important/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts?

☐ Yes ☐ No

Public Outreach Additional Information

Public Information Programs	Importance	

Social Marketing Programs

Branding

Does your agency have a water conservation "brand," "theme" or mascot? ☐ Yes ☐ No

Describe the brand, theme or mascot.

Market Research

Have you sponsored or participated in market research to refine your message? ☐ Yes ☐ No

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Market Research Topic

Brand Message

Brand Mission Statement

Community Committees

Do you have a community conservation committee?

☐ Yes ☒ No

Enter the names of the community committees:

Training

Training Type	# of Trainings	# of Attendees	Description of Other
Residential Landscape	\$4	\$110	
Professional Landscape	\$10	\$367	

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description

Partnering Programs - Partners

Name

Type of Program

☐ CLCA?

☐ Green Building Programs?

☐ Master Gardeners?

☐ Cooperative Extension?

☐ Local Colleges?

☒ Other

North County Water Agencies

☒ Retail and wholesale outlet; name(s) and type(s) of programs:

SDCWA

20-gallon challenge

Partnering Programs - Newsletters

Number of newsletters per year

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Number of customers per year

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities

San Diego Gas & Electric

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency

California Friendly Landscape Contest

Comments:

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.



Agency name: Santa Fe Irrigation District

Reporting unit name

(District name) Santa Fe Irrigation District

Reporting unit number: 202

Primary contact:

First name: Jessica

Last name: Parks

Email: jparks@sfidwater.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2009

BMP 2.2 School Education Programs, Retail Agencies

School Programs

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

☒ Yes ☐ No

Enter Wholesaler Names, separated by commas:

San Diego County Water Authority, Metropolitan Water District

☒ Materials meet state education framework requirements?

Description of Materials

Coloring Books, Flyers, Booklets, Videos

☒ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Coloring Books, Flyers, Booklets, Videos

Number of students reached

810

☐ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Number of Distribution

Annual budget for school education program

\$10,025.00

Description of all other water supplier education programs

Green Machine, Splash Lab, NCWA Poster contest, Water IQ Kiosk

School Program Activities

Classroom presentations:

Number of presentations

5

Number of attendees

170

Large group assemblies:

Number of presentations

Number of attendees

Children's water festivals or other events:

Number of presentations

Number of attendees

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations

5

Number of attendees

800

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Description	Water IQ Kiosk		
Number distributed	1		
Staffing children's booths at events & festivals:			
Number of booths	0	Number of attendees	
Water conservation contests such as poster and photo:			
Description	North County Water Agencies "Water is Life" Poster Calendar Contest		
Number distributed	500		
Offer monetary awards/funding or scholarships to students:			
Number Offered	3	Total Funding	225
Teacher training workshops:			
Number of presentations		Number of attendees	
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:			
Number of tours or field trips	1	Number of participants	120
College internships in water conservation offered:			
Number of internships	1	Total funding	0
Career fairs/workshops:			
Number of presentations		Number of attendees	
Additional program(s) supported by agency but not mentioned above:			
Description			
Number of events (if applicable)		Number of participants	
Total reporting period budget expenditures for school education programs (include all agency costs):			2825.00

Comments

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:

Agency name:

Santa Fe Irrigation District

First name:

Jessica

Division name
(Reporting unit)

Santa Fe Irrigation District

Last name:

Parks

Reporting unit number:

202

Email:

jparks@sfiwater.org



WATER SOURCES

Service Area Population:

19195

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
Lake Hodges	5,209.00	Surface	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
San Diego County Water Authority	5,666.00	Other	Imported water
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	
		Other	

Exported Water Name	AF/YEAR	Where Exported?

2010

The fields in red are required.

Agency name:

First name:

Jessica

Santa Fe Irrigation District

Last name:

Reporting unit number: 202

202

Email: jparks@sfidwater.org



19195

If you select Other for type, enter

[illegible]

The fields in red are required.

Primary contact:



Make sure to enter numbers in AF/Year.

Potable Water Un-Billed

[illegible]

The fields in red are required.

Primary contact:

First name:

Last name:

Email: jparks@sfidwater.org



Non-Potable Billed

[illegible]

Non-Potable Un-Billed

[illegible]

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:

Agency name: Santa Fe Irrigation District

First name: Jessica

Reporting unit name

(District name) Santa Fe Irrigation District

Last name: Parks

Reporting unit number: 202

Email: jparks@sfdwater.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



[Link to FAQs](#)

2010

BMP 1.1 Operations Practices

Comments:

[See the complete MOU:](#) [View MOU](#)

[See the coverage requirements for this BMP:](#)

Conservation Coordinator

Conservation Coordinator ☒ Yes ☐ No

Contact Information

First Name: Michael

Last Name: Banks

Title: Conservation Specialist

Phone: 858-756-2424

Email: mbanks@sfdwater.org

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

- Enact and enforce an ordinance or establish terms of service that prohibit water waste
- Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- Support legislation or regulations that prohibit water waste
- Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- Support local ordinances that prohibit water waste
- Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

- A description of, or electronic link to, any ordinances or terms of service
- A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
- description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

<http://www.sfdwater.org/docs/Drought%20Policies%20&%20Procedures%20Art.17%20Oct09%20.pdf>

Enter a description:

Job description of Conservation Specialist: <http://www.sfdwater.org/docs/Water%20Conservation%20Technician%20Jan%202010.pdf>

The fields in red are required. Appendix J: 2009-2010 Annual Report and BMP Coverage Report



Agency name: Santa Fe Irrigation District First name: Jessica
 Reporting unit name (District name): Santa Fe Irrigation District Last name: Parks
 Reporting unit number: 202 Email: jparks@sfidwater.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 1.2 Water Loss Control

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software ☐ Yes ☒ No
 Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

Water Audit Validity Score from AWWA spreadsheet

Agency Completed Training In The AWWA Water Audit Method ☐ Yes ☒ No

Agency Completed Training In The Component Analysis Process ☐ Yes ☒ No

Completed/Updated the Component Analysis (at least every 4 years)? ☐ Yes ☒ No

Component Analysis Completed/Updated Date

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective ☒ Yes ☐ No

Recording Keeping Requirements:

Date/Time Leak Reported	Leak Location
Type of Leaking Pipe Segment or Fitting	Leak Running Time From Report to Repair
Leak Volume Estimate	Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective ☒ Yes ☐ No

Type of Program Activities Used to Detect Unreported Leaks

Observed by agency personnel,

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of Apparent Loss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)
62			0			

Comments:

The fields in red are required.

Primary contact:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Agency name: **Appendix J: 2009-2010 Annual Report and BMP Coverage Report**

Reporting unit name

(District name) Santa Fe Irrigation District

Last name:

Parks

Reporting unit number:

202

Email:

jparks@sfidwater.org



BMP 1.3 Metering with Commodity 2010

[Link to FAQs](#)

[See the complete MOU: View MOU](#)

[See the coverage requirements for this BMP:](#)

Implementation

Does your agency have any unmetered service connections?

☐ Yes ☒ No

If YES, has your agency completed a meter retrofit plan?

☐ Yes ☒ No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered?

☒ Yes ☐ No

Are all new service connections being billed volumetrically?

☒ Yes ☐ No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters?

☐ Yes ☒ No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
Single-Family	5,482	5,482	5,482	Bi-monthly	32,892
Multi-Family	466	466	466	Bi-monthly	2,796
Commercial	319	319	319	Bi-monthly	1,914
Institutional	77	77	77	Bi-monthly	462
Dedicated Irrigation	137	137	137	Bi-monthly	822
Other	779	779	779	Bi-monthly	4,674
Other				Other	
Other				Other	
Other				Other	
Other				Other	

Number of CII Accounts with Mixed-use Meters

155

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

0

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? ☐ Yes ☒ No

If YES, please fill in the following information:

A. When was the Feasibility Study conducted

B. Describe, upload or provide an electronic link to the Feasibility Study Upload File

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Comments:

The fields in red are required.

Primary contact:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Agency name: Santa Fe Irrigation District

First name: Jessica

Reporting unit name

(District name) Santa Fe Irrigation District

Last name: Parks

Reporting unit number: 202

Email: jparks@sfdwater.org



2010

BMP 1.4 Retail Conservation Pricing

[Link to FAQs](#)

[View MOU](#)

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Increasing Block	Single-Family	9,694,344.93	1,973,026.29
Uniform	Multi-Family	830,718.10	301,455.62
Uniform	Commercial	507,391.35	157,798.91
Uniform	Institutional	150,149.85	44,171.06
Uniform	Dedicated Irrigation	805,862.05	117,962.86
Uniform	Agricultural	77,308.62	11,920.12
Uniform	Other	645,304.88	153,950.68

Implementation Option (Conservation Pricing Option)

- ☒ Use Annual Revenue As Reported
☐ Use Canadian Water & Wastewater Association Rate Design Model

If CWWA is select, enter the file name and email the spreadsheet to natalie@cuwcc.org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service

☐ Yes ☒ No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		
Select a Rate Struc	Other		

Comments:

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.



Agency name: Santa Fe Irrigation District
 Reporting unit name (District name): Santa Fe Irrigation District
 Reporting unit number: 202
 First name: Jessica
 Last name: Parks
 Email: jparks@sfdwater.org

[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.1 Public Outreach - Retail Reporting

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP?

☒ Yes ☐ No

Enter the name(s) of the wholesale agency (comma delimited)

San Diego County Water Authority, Metropolitan Water District

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year? ☒

Number of Public Contacts	Public Information Programs
12	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
1	Newsletter articles on conservation
7	General water conservation information
1	Email Messages
1	Website

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP?

☒ Yes ☐ No

Enter the name(s) of the wholesale agency (comma delimited)

San Diego County Water Authority, Metropolitan Water District

OR Retail Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year? ☒

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
15		Articles or stories resulting from outreach
6		News releases
		Select a type of media contact
		Select a type of media contact
		Select a type of media contact
		Select a type of media contact

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP?

☐ Yes ☒ No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

<http://www.sfidwater.org>

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

Update on website bulletin, created a seperate water conservation webpage, posted conservation helping guides, advertised our landscape classes, and posted our waterwaster hotline number

Did at least one Website Update take place during each quarter of the reporting year?

☒ Yes ☐ No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount	Personnel Costs Included? If yes, check the box.	Comments
Conservation Outreach	\$140,220	<input type="checkbox"/>	
General Public	\$25,000	<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Comments:

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.



Agency name: Primary contact: First name: Last name: Email:
 Reporting unit name (District name):
 Reporting unit number:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

2010

BMP 2.1 Public Outreach Cont'd

[View MOU](#)

Public Outreach Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question related to your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Expense Category	Expense Amount	Personnel Costs Included?
	\$7,832.00	<input type="checkbox"/> If yes, check the check box.
	\$88,469.00	<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of how your agency views their importance / effectiveness with respect to conserving water, with the most important/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts?

☐ Yes ☐ No

Public Outreach Additional Information

Public Information Programs	Importance

Social Marketing Programs

Branding

Does your agency have a water conservation "brand," "theme" or mascot? ☒ Yes ☐ No

Describe the brand, theme or mascot.

H2O, Running Low

Market Research

Have you sponsored or participated in market research to refine your message? ☒ Yes ☐ No

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Market Research Topic

Customer Survey

Brand Message

H2O, Running Low

Brand Mission Statement

Community Committees

Do you have a community conservation committee?

☒ Yes ☐ No

Enter the names of the community committees:

Water Ambassadors

Training

Training Type	# of Trainings	# of Attendees	Description of Other
Residential Landscape	\$5	\$392	
Professional Landscape	\$4	\$113	

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description

Partnering Programs - Partners

Name

Type of Program

☐ CLCA?

☐ Green Building Programs?

☐ Master Gardeners?

☐ Cooperative Extension?

☐ Local Colleges?

☒ Other

North County Water Agencies

☒ Retail and wholesale outlet; name(s) and type(s) of programs:

SDCWA

20-gallon challenge

Partnering Programs - Newsletters

Number of newsletters per year

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Number of customers per year

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities

San Diego Gas & Electric

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency

Comments:

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

The fields in red are required.

Primary contact:

Agency name: Santa Fe Irrigation District

First name: Jessica

Reporting unit name

Last name: Parks

(District name) Santa Fe Irrigation District

Reporting unit number: 202

Email: jparks@sfidwater.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.



[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.2 School Education Programs, Retail Agencies School Programs

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

☒ Yes ☐ No

Enter Wholesaler Names, separated by commas:

San Diego County Water Authority, Metropolitan Water District

☒ Materials meet state education framework requirements?

Description of Materials

Coloring books, Flyers, Booklets, Videos

☒ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Coloring books, flyers, booklets, videos

Number of students reached

810

☐ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Number of Distribution

Annual budget for school education program

\$10,150.00

Description of all other water supplier education programs

Green Machine, Splash Lab, NCWA Poster contest, water IQ Kiosk

School Program Activities

Classroom presentations:

Number of presentations

6

Number of attendees

400

Large group assemblies:

Number of presentations

Number of attendees

Children's water festivals or other events:

Number of presentations

9

Number of attendees

830

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations

Number of attendees

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Description

Number distributed

Staffing children's booths at events & festivals:

Number of booths

Number of attendees

Water conservation contests such as poster and photo:

Description

North County Water Agency "Water is Life" Poster
Calendar Contest

Number distributed

500

Offer monetary awards/funding or scholarships to students:

Number Offered

3

Total Funding

225

Teacher training workshops:

Number of presentations

Number of attendees

Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:

Number of tours or field
trips

Number of participants

College internships in water conservation offered:

Number of internships

1

Total funding

0

Career fairs/workshops:

Number of presentations

Number of attendees

Additional program(s) supported by agency but not mentioned above:

Description

Number of events (if
applicable)

Number of participants

**Total reporting period budget expenditures for school education programs
(include all agency costs):**

3605.00

Comments

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



California Urban Water
Conservation Council

Main Data

Input cells: Data Entry in acre-feet unless otherwise noted
Calculated cells:

Volume from Own Sources

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL TOTAL (INPUT)	METER ADJUSTMENT (%)	CALCULATED TOTAL
2010	749.600	499.400	512.900	498.700	449.100	200.800	227.200	254.900	472.200	582.600	636.200	628.400	5,712.000		5,712.000
2009	373.800	265.300	455.900	487.400	349.100	247.600	268.700	238.900	504.600	714.200	817.700	656.700	5,379.900		5,379.900
2008	419.600	381.900	438.300	334.200	459.500	201.500	112.900	217.900	645.600	651.300	645.200	565.300	5,073.200		5,073.200
2007	227.400	161.100	246.000	226.400	551.800	188.900	442.600	337.900	362.200	330.000	401.500	347.400	3,823.200		3,823.200
2006	422.200	379.600	128.900	210.600	217.100	278.000	116.400	358.800	378.200	465.500	409.600	359.700	3,724.600		3,724.600
2005	267.100	200.900	452.600	322.200	9.300	33.900	205.200	104.100	232.700	415.900	470.900	253.300	2,968.100		2,968.100
2004	350.400	325.200	0.000	0.000	0.000	21.400	0.000	0.000	0.000	0.000	172.100	96.800	965.900		965.900
2003	433.100	378.300	335.200	7.000	230.800	177.700	402.800	230.200	272.000	387.900	290.200	217.700	3,362.900		3,362.900
2002	529.200	532.800	380.700	282.200	308.000	140.400	362.000	120.900	79.500	439.100	570.200	522.600	4,267.600		4,267.600
2001	571.100	489.200	220.500	511.400	486.300	415.900	300.200	224.700	416.500	546.600	469.000	628.600	5,280.000		5,280.000
2000	658.600	549.000	517.700	582.200	518.300	490.800	492.600	333.900	313.900	500.200	668.900	652.700	6,278.800		6,278.800
1999	570.000	608.800	561.400	718.000	447.100	428.800	441.300	487.600	397.400	507.600	630.900	575.300	6,374.200		6,374.200
1998	564.900	596.600	554.100	495.000	355.800	310.800	284.400	0.000	150.600	497.700	448.600	549.300	4,807.800		4,807.800
1997	467.800	467.200	627.700	653.700	425.600	252.500	287.200	251.600	436.000	589.400	502.900	504.600	5,466.200		5,466.200
1996	600.200	620.900	498.100	535.500	552.300	567.300	492.900	176.700	314.200	471.200	545.700	519.400	5,894.400		5,894.400
1995	579.700	629.200	307.600	559.000	374.000	476.900	35.500	259.600	72.700	319.800	612.800	629.600	4,856.400		4,856.400
1994	621.100	675.000	636.800	661.000	190.600	454.100	392.700	215.000	147.900	601.500	582.300	506.800	5,684.800		5,684.800
1993	422.100	409.700	532.800	334.800	329.200	112.100	46.900	105.600	5.700	321.200	554.400	440.000	3,614.500		3,614.500
1992	463.900	165.800	254.300	211.000	171.100	103.000	44.500	73.800	147.700	158.800	390.800	345.700	2,530.400		2,530.400
1991	19.200	123.500	172.100	135.200	91.200	38.500	0.800	0.000	111.500	56.900	260.100	275.400	1,284.400		1,284.400
1990	490.900	353.300	302.500	221.300	158.900	158.700	43.400	13.300	0.000	0.000	0.000	17.700	1,760.000		1,760.000

Volume from Imported Sources

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL TOTAL (INPUT)	METER ADJUSTMENT (%)	CALCULATED TOTAL
2010	619.200	895.600	813.300	648.200	518.200	267.900	290.000	44.400	138.000	297.800	547.500	616.200	5,696.300		5,696.300
2009	1,287.800	1,362.100	980.600	909.800	610.400	196.400	476.600	242.000	470.200	469.100	551.700	491.200	8,047.900		8,047.900
2008	1,361.600	1,408.100	1,075.200	955.900	665.600	324.300	366.200	274.100	306.100	631.800	764.800	981.900	9,115.600		9,115.600
2007	1,632.200	1,452.900	1,316.600	1,076.100	530.300	561.500	445.400	174.000	691.700	743.900	1,010.100	1,207.300	10,842.000		10,842.000
2006	1,231.100	1,351.300	1,472.400	929.300	882.800	701.300	536.500	435.700	88.800	228.400	748.800	1,271.200	9,877.600		9,877.600
2005	1,537.000	1,564.500	1,259.300	687.500	590.600	571.800	127.500	244.400	216.500	766.500	1,002.600	1,169.000	9,737.200		9,737.200
2004	1,144.000	1,282.300	1,416.200	1,223.800	691.200	757.700	754.900	565.300	747.400	1,110.600	1,257.500	1,491.700	12,442.600		12,442.600
2003	1,326.400	1,334.900	1,141.300	1,257.600	692.100	417.500	480.500	367.700	415.200	653.400	950.500	1,033.600	10,070.700		10,070.700
2002	984.700	1,065.300	1,001.900	906.100	417.000	276.200	344.300	669.900	504.500	608.300	847.200	1,008.200	8,633.600		8,633.600
2001	1,139.500	1,199.200	1,238.800	539.500	366.300	431.200	289.300	287.200	188.900	378.400	692.600	758.000	7,508.900		7,508.900
2000	1,047.300	1,177.800	860.000	769.100	557.300	456.300	301.300	193.400	409.300	597.000	724.000	963.100	8,055.900		8,055.900
1999	984.200	1,101.500	890.400	638.000	415.600	188.800	250.700	36.800	351.200	164.200	641.700	822.400	6,485.500		6,485.500
1998	968.300	970.500	747.600	824.900	352.800	187.900	100.000	231.900	304.500	120.500	585.200	796.400	6,190.500		6,190.500

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

1997	1,046.200	1,076.600	779.600	556.400	357.700	225.400	57.500	332.900	534.700	616.100	881.000	898.800
1996	810.000	755.000	892.600	602.300	309.200	191.700	173.800	189.600	311.100	543.700	841.700	954.600
1995	843.300	854.900	746.400	593.900	401.800	214.400	155.200	113.800	93.400	480.200	310.300	515.600
1994	745.200	708.600	621.500	448.400	579.900	232.200	340.800	140.600	353.700	135.800	252.900	749.800
1993	1,029.000	1,013.800	859.900	752.700	530.200	393.800	128.500	138.400	500.000	672.700	675.500	614.200
1992	650.800	895.200	837.900	686.500	403.700	430.000	366.300	290.200	204.000	532.000	751.800	895.900
1991	1,574.900	1,325.400	1,193.600	1,113.100	839.600	761.400	571.800	698.700	159.400	467.700	758.400	600.200
1990	1,073.500	1,299.100	1,016.200	882.600	811.300	817.300	509.400	466.700	738.200	675.100	1,245.100	1,157.200

7,362.900	7,362.900
6,575.300	6,575.300
5,323.200	5,323.200
5,309.400	5,309.400
7,308.700	7,308.700
6,944.300	6,944.300
10,064.200	10,064.200
10,691.700	10,691.700

Volume of Water Exported to Another Water Utility or Jurisdiction

[illegible][illegible]

Recycled Water Delivered

NOTE: Only 2008 recycled water delivered is required; other years are optional

[illegible]

ANNUAL TOTAL (INPUT)	METER ADJUST- MENT (%)	CALCULATED TOTAL
497.000		497.000
541.000		541.000
1,132.700		1,132.700
1,162.000		1,162.000
1,124.400		1,124.400
1,091.100		1,091.100
1,109.600		1,109.600
992.800		992.800
862.800		862.800
		0.000

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

2000												
1999												
1998												
1997												
1996												
1995												
1994												
1993												
1992												
1991												
1990												

		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000

Change in Distribution System Storage

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2010												
2009												
2008												
2007												
2006												
2005												
2004												
2003												
2002												
2001												
2000												
1999												
1998												
1997												
1996												
1995												
1994												
1993												
1992												
1991												
1990												

Fiscal Year Ending	ANNUAL CHANGE IN STORAGE	CALCULATED Net Change in Storage
2010		0.000
2009		0.000
2008		0.000
2007		0.000
2006		0.000
2005		0.000
2004		0.000
2003		0.000
2002		0.000
2001		0.000
2000		0.000
1999		0.000
1998		0.000
1997		0.000
1996		0.000
1995		0.000
1994		0.000
1993		0.000
1992		0.000
1991		0.000
1990		0.000

Indirect Recycled Water Use

[\(use this calculator to help generate values\)](#)

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Fiscal Year Ending	ANNUAL TOTAL (INPUT)	CALCULATED TOTAL
2010		0.000
2009		0.000
2008		0.000
2007		0.000
2006		0.000
2005		0.000
2004		0.000

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

2003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1999	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1998	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1997	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1996	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1994	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1993	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1992	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1991	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1990	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

2003		0.000
2002		0.000
2001		0.000
2000		0.000
1999		0.000
1998		0.000
1997		0.000
1996		0.000
1995		0.000
1994		0.000
1993		0.000
1992		0.000
1991		0.000
1990		0.000

Water Delivered for Agricultural Use (values entered will be subtracted from base daily GPCD water use)

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2010												
2009												
2008												
2007												
2006												
2005												
2004												
2003												
2002												
2001												
2000												
1999												
1998												
1997												
1996												
1995												
1994												
1993												
1992												
1991												
1990												

ANNUAL TOTAL (INPUT)	METER ADJUSTMENT (%)	CALCULATED TOTAL
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000
		0.000

Industrial Process Water Delivered (values entered will be subtracted from base daily GPCD water use and baseline CII GPCD)

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2010												
2009												
2008												
2007												

ANNUAL TOTAL (INPUT)	METER ADJUSTMENT (%)	CALCULATED TOTAL
		0.000
		0.000
		0.000
		0.000

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

[illegible]

Gross Water Use

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL TOTAL USAGE
2010	1,368.800	1,395.000	1,326.200	1,146.900	967.300	468.700	517.200	299.300	610.200	880.400	1,183.700	1,244.600	11,408.300
2009	1,661.600	1,627.400	1,436.500	1,397.200	959.500	444.000	745.300	480.900	974.800	1,183.300	1,369.400	1,147.900	13,427.800
2008	1,781.200	1,790.000	1,513.500	1,290.100	1,125.100	525.800	479.100	492.000	951.700	1,283.100	1,410.000	1,547.200	14,188.800
2007	1,859.600	1,614.000	1,562.600	1,302.500	1,032.100	750.400	888.000	511.900	1,053.900	1,073.900	1,411.600	1,554.700	14,665.200
2006	1,653.300	1,730.900	1,601.300	1,139.900	1,099.900	979.300	652.900	794.500	467.000	693.900	1,158.400	1,630.900	13,602.200
2005	1,804.100	1,765.400	1,711.900	1,009.700	599.900	605.700	332.700	348.500	449.200	1,182.400	1,473.500	1,422.300	12,705.300
2004	1,494.400	1,607.500	1,416.200	1,223.800	691.200	779.100	754.900	565.300	747.400	1,110.600	1,429.600	1,588.500	13,408.500
2003	1,759.500	1,713.200	1,476.500	1,264.600	922.900	595.200	883.300	597.900	687.200	1,041.300	1,240.700	1,251.300	13,433.600
2002	1,513.900	1,598.100	1,382.600	1,188.300	725.000	416.600	706.300	790.800	584.000	1,047.400	1,417.400	1,530.800	12,901.200
2001	1,710.600	1,688.400	1,459.300	1,050.900	852.600	847.100	589.500	511.900	605.400	925.000	1,161.600	1,386.600	12,788.900
2000	1,705.900	1,726.800	1,377.700	1,351.300	1,075.600	947.100	793.900	527.300	723.200	1,097.200	1,392.900	1,615.800	14,334.700
1999	1,554.200	1,710.300	1,451.800	1,356.000	862.700	617.600	692.000	524.400	748.600	671.800	1,272.600	1,397.700	12,859.700
1998	1,533.200	1,567.100	1,301.700	1,319.900	708.600	498.700	384.400	231.900	455.100	618.200	1,033.800	1,345.700	10,998.300
1997	1,514.000	1,543.800	1,407.300	1,210.100	783.300	477.900	344.700	584.500	970.700	1,205.500	1,383.900	1,403.400	12,829.100
1996	1,410.200	1,375.900	1,390.700	1,137.800	861.500	759.000	666.700	366.300	625.300	1,014.900	1,387.400	1,474.000	12,469.700
1995	1,423.000	1,484.100	1,054.000	1,152.900	775.800	691.300	190.700	373.400	166.100	800.000	923.100	1,145.200	10,179.600
1994	1,366.300	1,383.600	1,258.300	1,109.400	770.500	686.300	733.500	355.600	501.600	737.300	835.200	1,256.600	10,994.200
1993	1,451.100	1,423.500	1,392.700	1,087.500	859.400	505.900	175.400	244.000	505.700	993.900	1,229.900	1,054.200	10,923.200
1992	1,114.700	1,061.000	1,092.200	897.500	574.800	533.000	410.800	364.000	351.700	690.800	1,142.600	1,241.600	9,474.700
1991	1,594.100	1,448.900	1,365.700	1,248.300	930.800	799.900	572.600	698.700	270.900	524.600	1,018.500	875.600	11,348.600
1990	1,564.400	1,652.400	1,318.700	1,103.900	970.200	976.000	552.800	480.000	738.200	675.100	1,245.100	1,174.900	12,451.700

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



California Urban Water
Conservation Council

Population

Input cells:
Calculated cells:

Enter population data for the service area.

YEAR	POPULATION	
2010	19,386	
2009	19,195	
2008	19,071	
2007	19,056	
2006	19,051	
2005	19,124	
2004	19,305	
2003	19,317	
2002	19,266	
2001	19,244	
2000	19,083	
1999	19,033	
1998	18,988	
1997	18,943	
1996	18,898	
1995	18,853	
1994	18,808	
1993	18,763	
1992	18,718	
1991	18,674	
1990	18,630	

Please note:

The GPCD calculation is very sensitive to errors in population. Please review the guidance document ***Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use*** for additional information and direction in order to acquire the most accurate population estimates.

Population data are only required for years that contain water use data.

If you see "<--Enter Population" this indicates you have entered water use data for this timeframe but not population. Please add population data to enable a calculation of GPCD and associated targets.

19,159 Average population, for the baseline period selected, in the GPCD Matrix worksheet

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



California Urban Water
Conservation Council

GPCD Matrix

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL GPCD
2010	756.4	770.9	732.9	633.8	534.5	259.0	285.8	165.4	337.2	486.5	654.1	687.8	525.4
2009	927.4	908.3	801.7	779.8	535.5	247.8	416.0	268.4	544.0	660.4	764.3	640.7	624.5
2008	1000.6	1005.5	850.2	724.7	632.0	295.4	269.1	276.4	534.6	720.8	792.1	869.1	664.2
2007	1045.4	907.4	878.5	732.2	608.3	421.9	499.2	287.8	592.5	603.7	793.6	874.0	687.0
2006	929.7	973.3	900.5	641.0	618.5	550.7	367.1	446.8	262.6	390.2	651.4	917.1	637.4
2005	1010.6	988.9	959.0	565.6	336.1	339.3	186.4	195.2	251.6	662.4	825.4	796.7	593.1
2004	829.3	892.0	785.9	679.1	383.6	432.3	418.9	313.7	414.8	616.3	793.3	881.5	620.1
2003	975.8	950.1	818.8	701.3	511.8	330.1	489.9	331.6	381.1	577.5	688.1	694.0	620.8
2002	841.8	888.6	768.8	660.8	403.1	231.7	392.7	439.7	324.7	582.4	788.1	851.2	597.8
2001	952.3	939.9	812.4	585.0	474.6	471.6	328.2	285.0	337.0	514.9	646.6	771.9	593.3
2000	957.7	969.4	773.4	758.6	603.8	531.7	445.7	296.0	406.0	616.0	782.0	907.1	670.6
1999	874.8	962.7	817.2	763.2	485.6	347.6	389.5	295.2	421.4	378.1	716.3	786.7	603.2
1998	865.0	884.1	734.4	744.7	399.8	281.4	216.9	130.8	256.8	348.8	583.3	759.2	517.1
1997	856.2	873.1	795.9	684.4	443.0	270.3	194.9	330.6	549.0	681.8	782.6	793.7	604.6
1996	799.4	780.0	788.4	645.0	488.4	430.3	377.9	207.6	354.5	575.3	786.5	835.6	589.1
1995	808.6	843.3	598.9	655.1	440.8	392.8	108.4	212.2	94.4	454.6	524.5	650.7	482.0
1994	778.2	788.1	716.7	631.9	438.9	390.9	417.8	202.5	285.7	420.0	475.7	715.8	521.9
1993	828.5	812.8	795.2	620.9	490.7	288.8	100.1	139.3	288.7	567.5	702.2	601.9	519.7
1992	638.0	607.2	625.1	513.7	329.0	305.1	235.1	208.3	201.3	395.4	653.9	710.6	451.9
1991	914.5	831.2	783.5	716.1	534.0	458.9	328.5	400.8	155.4	301.0	584.3	502.3	542.5
1990	899.6	950.2	758.3	634.8	557.9	561.2	317.9	276.0	424.5	388.2	716.0	675.6	596.7

Recycled water accounts for 8 % of 2008 deliveries, therefore select a 10 year baseline period using the selection buttons below

Baseline Ending In...	Baseline 10- years	N/A	N/A	N/A	N/A	N/A
	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010	<input type="radio"/>	616.4				
2009	<input checked="" type="radio"/>	630.9				
2008	<input type="radio"/>	628.8				
2007	<input type="radio"/>	614.0				
2006	<input type="radio"/>	605.8				
2005	<input type="radio"/>	601.0				
2004	<input type="radio"/>	589.9				

Ending in...	Baseline 5- years
<input type="radio"/> 2010	627.7
<input checked="" type="radio"/> 2009	641.3
<input type="radio"/> 2008	640.4
<input type="radio"/> 2007	631.7

Base daily per capita water use (10-15yr baseline) 630.9

Base daily per capita water use (5yr baseline) 641.3

User selection buttons:
Use the buttons to indicate the

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



Appendix J: 2009-2010 Annual Report and BMP Coverage Report



California Urban Water
Conservation Council

TARGETS / COMPLIANCE (CUWCC MOU)

Baseline / Initial GPCD
(Use option buttons to select)

GPCD in 2006 ☒ 637.4
 Baseline GPCD (1997 to 2006) ☐ 605.8

GPCD in 2010 525.4
 GPCD Target for 2018 522.7

Potable Water GPCD for each Year in the
Baseline Period

Year	GPCD
2006	637.4
2005	593.1
2004	620.1
2003	620.8
2002	597.8
2001	593.3
2000	670.6
1999	603.2
1998	517.1
1997	604.6

Biennial GPCD Compliance Table

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	614.5	100%	637.4
2012	2	92.8%	591.5	96.4%	614.5
2014	3	89.2%	568.6	92.8%	591.5
2016	4	85.6%	545.6	89.2%	568.6
2018	5	82.0%	522.7	82.0%	522.7

Monthly GPCD Data for Weather Normalization

Fiscal Year Ending	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
2010	756.4	770.9	732.9	633.8	534.5	259.0	285.8	165.4	337.2	486.5	654.1	687.8
Baseline avg*	909.3	932.2	816.6	678.4	466.0	378.7	343.0	306.5	360.5	536.8	725.7	815.9

* The average for each month is based on the baseline period 1997 to 2006

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



California Urban Water
Conservation Council

TARGETS / COMPLIANCE (SBx7-7)

Input cells:
Calculated cells:

Target Summary	2020	2015
Method 1	504.7	567.8
Method 2	N/A	N/A
Method 3	N/A	N/A
Method 4	0.0	0.0
	Min Value	Max Value

GPCD in 2010	525.4
Base daily per capita water use (10-15yr baseline)	630.9
Base daily per capita water use (5yr baseline)	641.3
Max. allowable GPCD target in 2020 (95% x 5yr baseline)	609.2

Method 1: Baseline per Capita Water Use

80% x Base daily per capita water use (10-15yr baseline):

2015 Target:

2020 Target:

Method 2: Performance Standards

TM 2 Indoor Water Use allowance:

TM 6 Landscaped Area Water Use:

TM 7 Baseline CII Water Use:

2015 Target:

2020 Target:

Method 3: Hydrologic Region Targets

Enter the percentage of your service area population in each hydrologic region

Region	Region Name	% Population	GPCD Target
1	North Coast	<input type="text"/>	137
2	San Francisco Bay	<input type="text"/>	131
3	Central Coast	<input type="text"/>	123
4	South Coast	<input type="text"/>	149
5	Sacramento River	<input type="text"/>	176
6	San Jacinto	<input type="text"/>	174
7	Tulare lake	<input type="text"/>	188
8	North Lahontan	<input type="text"/>	173
9	South Lahontan	<input type="text"/>	170
10	Colorado River	<input type="text"/>	211
		<input type="text" value="0.0%"/>	

2015 Target:

2020 Target:

Method 4:

To be Developed

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



Appendix J: 2009-2010 Annual Report and BMP Coverage Report

CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **Santa Fe Irrigation District**

District Name: **Santa Fe Irrigation District**

CUWCC Unit #: **202**

Retail

Primary Contact **Jessica Parks**

Telephone **858-756-2424**

Email: **jparks@sfdwater.org**

Compliance Option Chosen By Reporting Agency:

(Traditional, Flex Track or GPCD)

GPCD if used:

GPCD in 2010	525
GPCD Target for 2018	523

Year	Report	Target	Highest Acceptable Bound			
			% Base	GPCD	% Base	GPCD
2010	1		96.4%	614	100%	637
2012	2		92.8%	592	96%	614
2014	3		89.2%	569	93%	592
2016	4		85.6%	546	89%	569
2018	5		82.0%	523	82%	523

Not on Track if 2010 GPCD is \geq than target

GPCD in 2010 **525**

Highest

Acceptable GPCD **637**

for 2010

On Track

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Agency: Santa Fe Irrigation District
Retail

District Name: Santa Fe Irrigation District

CUWCC Unit #: 202



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Foundational BMPs

BMP 1.1 Operational Practices

		2009	2010	Conservation Coordinator provided with necessary resources to implement BMPs?
1. Conservation Coordinator provided with necessary resources to implement BMPs?	Name Title Email	Michael Banks Conservation Specialist	Michael Banks Conservation Specialist mbanks@sfdwater	
		On Track	On Track	
2. Water waste prevention documentation				
Descriptive File		0	0	On Track if any one of the 6 ordinance actions done, plus documentation or links provided
Descriptive File 2010		Description of Water Conservation Specialist:		
URL			http://www.sfdwater.org/docs/Drought%20Policies%20&%20Procedures%20	
URL 2010		Description of Water Conservation Specialist:		
Describe Ordinance Terms			Job description of Conservation Specialist:	
Describe Ordinance Terms 2010			http://www.sfdwater.org/docs/Water%20Conservation%20Technician%20	
		On Track	On Track	

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Agency: **Santa Fe Irrigation District**
Retail

District Name: **Santa Fe Irrigation District**

CUWCC Unit #: **202**



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

BMP 1.2 Water Loss Control

	2009	
Complete a prescreening Audit	yes	On Track
Metered Sales	13,016	
Verifiable Other Uses	283	
Total Supply	13,298	
(Metered Sales + System uses)/ Total Supply >0.89	1.00	On Track
If ratio is less than 0.9, complete a full scale Audit in 2009?	Yes	On Track
Verify Data with Records on File?	Yes	On Track
Operate a system Leak Detection Program?	Yes	On Track

On Track if Yes

On Track if ≥ 0.89 , Not on Track if No

On Track if Yes

On Track if Yes

On Track if Yes

	2010	
Compile Standard Water Audit using AWWA Software?	Yes	On Track
AWWA file provided to CUWCC?	SFID202AWWA.WLCC.xls	On Track
AWWA Water Audit Validity Score?	89	
Completed Training in AWWA Audit Method?	yes	
Completed Training in Component Analysis Process?	Yes	
Complete Component Analysis?	Yes	
Repaired all leaks and breaks to the extent cost effective?	Yes	On Track
Locate and repair unreported leaks to the extent cost effective.	Yes	On Track
Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.		
Provided 7 types of Water Loss Control Info		
Leaks Repaired	Value Real Losses	Value Apparent Losses
Miles Surveyed	Press Reduction	Cost of Interventions
Water Saved		
62	\$ -	\$ -
0	Off	\$ -
0		

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Agency: **Santa Fe Irrigation District**
Retail

District Name: **Santa Fe Irrigation District**

CUWCC Unit #: **202**



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

Exemption or 'At least as Effective As' accepted by CUWCC

Numbered Unmetered Accounts **2008**

Metered Accounts billed by volume of use

Number of CII accounts with Mixed Use meters

Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

Feasibility Study provided to CUWCC?

Completed a written plan, policy or program to test, repair and replace meters

2009
0
Yes
155
No
No
No

On Track

On Track

On Track until 2012

On Track until 2012

Info only

2010
0
Yes
155
No
No
No

On Track

On Track

On Track until 2012

On Track until 2012

Info only

If signed MOU prior to 31 Dec 1997, On Track if all connections metered; If signed after 31 Dec 1997, complete meter installations by 1 July 2012 or within 6 yrs of signing and 20% biannual reduction of unmetered connections.

On Track if no unmetered accounts

Volumetric billing required for all connections on same schedule as metering

Info only

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **Santa Fe Irrigation District**District Name: **Santa Fe Irrigation District**CUWCC Unit #: **202**

Retail

Coverage Report Date: **June 9, 2011**Primary Contact: **Jessica Parks**Email: **jparks@sfiwater.org****1.4 Retail Conservation Pricing****Metered Water Rate Structure**Date 2009 data received **May 20, 2011**Date 2010 data received **May 20, 2011**On Track if: Increasing Block, Uniform,
Allocation, Standby Service; Not on Track if
otherwise

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Single-Family	Increasing Block	Yes	Single-Family	Increasing Block	Yes
Multi-Family	Uniform	Yes	Multi-Family	Uniform	Yes
Commercial	Uniform	Yes	Commercial	Uniform	Yes
Institutional	Uniform	Yes	Institutional	Uniform	Yes
Dedicated Irrigation	Uniform	Yes	Dedicated Irrigation	Uniform	Yes
On Track			On Track		

Year Volumetric Rates began for Agencies with some Unmetered
Accounts

Info only

Agencies with Partially Metered Service Areas: If signed MOU prior to 31 Dec. 1997, implementation starts no later than 1 July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1 July 2013, or within seven years of signing the MOU,

Appendix J: 2009-2010 Annual Report and BMP Coverage Report

Agency: **Santa Fe Irrigation District**

District Name: **Santa Fe Irrigation District**

CUWCC Unit #: **202**

Retail

Coverage Report Date: **June 9, 2011**



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Adequacy of Volumetric Rates) for Agencies with No Unmetered Accounts

Customer Class	2009 Rate Type	2009 Volumetric Revenues \$1000s	2010 Rate Type	2010 Volumetric Revenues \$1000s
Single-Family	Increasing Block	\$ 10,298	Single-Family	\$ 9,694
Multi-Family	Uniform	\$ 807	Multi-Family	\$ 831
Commercial	Uniform	\$ 497	Commercial	\$ 507
Institutional	Uniform	\$ 156	Institutional	\$ 150
Dedicated Irrigation	Uniform	\$ 844	Dedicated Irrigation	\$ 806
Agricultural		\$ 85		\$ 77
Other		\$ 674		\$ 645
Total Revenue Commodity Charges (V):		\$ 13,362		
Total Revenue Fixed Charges (M):		\$ 2,406		
Calculate: V / (V + M):		85%		
		On Track		

Agency Choices for rates:

A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007: On Track if $(V / (V + M)) \geq 70\% \times .8 = 56\%$ for 2009 and $70\% \times 0.90 = 63\%$ for 2010; Not on track if $(V / (V + M)) < 70\%$;

B) Use Canadian model. Agencies signing MOU after 13June2007, implementation starts July 1 of year following signing.

Canadian Water & Wastewater Rate Design Model Used and Provided to CUWCC
If Canadian Model is used, was 1 year or 3 year period applied?

No
On Track

No
On Track

Wastewater Rates

Does Agency Provide Sewer Service?

2009
No If 'No', then wastewater rate info not required.

2010
No

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		On Track			On Track

On Track if: 'Increasing Block', 'Uniform', 'based on long term marginal cost' or 'next unit of capacity'

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

BMP 2. EDUCATION PROGRAMS

BMP 2.1 Public Outreach Actions Implemented and Reported to CUWCC

Does a wholesale agency implement Public Outreach Programs for this utility's benefit?

Names of Wholesale Agencies

1) Contacts with the public (minimum = 4 times per year)

2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).

3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).

4) Description of materials used to meet minimum requirement.

5) Annual budget for public outreach program.

6) Description of all other outreach programs

2009	2010
Yes	Yes
San Diego County	San Diego County
12	12
0	15
Yes	Yes
Newsletter articles on conservation Website Newsletter articles on conservation	Newsletter articles on conservation General water conservation information Email Messages Website Articles or stories resulting from outreach News releases
\$ 30,000	\$ 140,220
Description is too large for text area. Data will be stored in the BMP Reporting database when online.	Description is too large for text area. Data will be stored in the BMP Reporting database when online.
On Track - See Wholesale Report	On Track - See Wholesale Report

Yes/No

All 6 action types implemented and reported to CUWCC to be 'On Track')

Appendix J: 2009-2010 Annual Report and BMP Coverage Report



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

2.2 School Education Programs Implemented and Reported to CUWCC

Does a wholesale agency implement School Education Programs for this utility's benefit?
Name of Wholesale Supplier?

1) Curriculum materials developed and/or provided by agency

2) Materials meet state education framework requirements and are grade-level appropriate?

3) Materials Distributed to K-6?

Describe K-6 Materials

Materials distributed to 7-12 students?

4) Annual budget for school education program.

5) Description of all other water supplier education programs

2009	2010
Yes	Yes
San Diego County Water Authority, Metropolitan Water District	San Diego County Water Authority, Metropolitan Water District
Coloring Books, Flyers, Booklets, Videos	Coloring books, Flyers, Booklets, Videos
No	No
No	No
Coloring Books, Flyers, Booklets, Videos	Coloring books, flyers, booklets, videos
No	No
\$ 10,025	\$ 10,150
Green Machine, Splash Lab, NCWA Poster contest, Water IQ Kiosk	Green Machine, Splash Lab, NCWA Poster contest, water IQ Kiosk
See Wholesale Report	See Wholesale Report
On Track	On Track

Yes/ No

All 5 actions types implemented and reported to CUWCC to be

Describe materials to meet minimum requirements

Info Only